

**2025
SPRING
UNDERGRADUATE
RESEARCH
CONFERENCE**

DRAFT PROGRAM

**FINAL PROGRAM & ABSTRACT BOOKLET
WILL BE PUBLISHED THE WEEK OF APRIL 1.**

Updated: March 28, 2025

POSTER SYMPOSIUM

*Posters are delivered in the Purdue Memorial Union North & South Ballrooms
on April 8, 2025.*

*Posters sorted by last name of first author within each session.
Names as in OURConnect.*

FIRST POSTER SESSION | 9:00AM-10:00AM

1000

VIP - AI for Education

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Colby Ben Acton; Alexander Peter Siladie; Gaetano Antonio Iannotta; Ryan James Hirsch; Vaibhav Charan; Apostolos Adam Cavounis; Shrish Mahesh

Mentor(s): Qiang Qiu; Wei Zakharov; Zichen Miao

1001

Heart Rate Measurement Abstract

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Fessehaye Adal

Mentor(s): Tiantian Qin

1002

Interactive Skyboxes: Integrating Depth and 3D Object Reconstruction in VR

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Maz Agrawal

Mentor(s): Voicu S Popescu

1003

Analysis of Longevity of Vegetable Oil as Metallurgical Quenchants Under Accelerated Aging

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Junyeong Ahn

Mentor(s): Jeffrey P Youngblood; Michael Titus

1004

Examining Bias in DNA Extraction of Surface Attached Soil Bacterial Communities

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kaitlyn Marie Annunziata

Mentor(s): Roland Conrad Wilhelm; Alex Batista Trentin

1005

Elastically Recoverable Dynamically Vulcanized Polymer Blend Nanocomposites

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): James Gavin Anzaldi

Mentor(s): John Howarter; Geeta Pokhrel

1006

AC2 Inhibitor Synthesis for Assessment of Physiological Roles in Blood-Brain Barrier Disorders

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Isabella Vollmer Arauz

Mentor(s): Daniel P Flaherty

1007

Emergency Response Drone for Narcan Delivery

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Nathan James Arnold; Parth Kailash Dubal

Mentor(s): James Michael Goppert; Nicole Adams; Nan Kong

1008

Platinum-Containing Compounds have Potential Roles as Cyanide Antidotes

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ari Samuel Samuel Arzumanian; Allison Catherine Bennett

Mentor(s): Vincent Jo Davisson

1009

An Automated Blender-Python-MATLAB Pipeline for Testing Visual Navigation Algorithms

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Adam Daniel Aufderheide

Mentor(s): Keith Allen LeGrand

1010

Investigating identity-based social capital for nonbinary STEM graduate students

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sofia Adelaide Jane Bahr

Mentor(s): Coleman Blaine Thompson; Adrian Gentry; Kerrie Douglas

1011

Effect of Nox2 Morpholino on Zebrafish Nervous System Development

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Mingi Bang

Mentor(s): Daniel Suter; Paola Nicole Vega Rodriguez

1012

Gamification of Pediatric Rehabilitation Exercise for Brachial Plexus Injuries

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Twinkal Barai; Aidan Hirsch; Ian Kwan Yin Lam; Kelly Hsieh Lin; Hamsikasree Vedavinayagam; Parth Kapila

Mentor(s): Juan Camilo Mesa Agudelo; Kevin Alessandro Bautista

1013

The Shot That Saves Lives

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Calla Grace Bauman

Mentor(s): Carla B Rosell

1014

Sounds of sustainability: Can unsupervised clustering recognize regenerative agriculture using insect acoustic data?

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Thomas Allen Belcher

Mentor(s): Kristen Marie Bellisario; Christine Harrison Elliott

1015

Wettability and Condensation Dynamics on Ultrawhite Radiative Cooling Paints

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sandra Edilia Bern

Mentor(s): Xiulin Ruan; Orlando Gabriel Rivera Gonzalez

1016

Toxicity of Menthol- and Tobacco-Flavored Electronic Cigarette Constituents Cause Inflammation, Epithelial Barrier Dysfunction and Modulate Nicotinic Acetylcholine Receptors in the Absence of Nicotine

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Arni Prakash Bhatnagar

Mentor(s): Thivanka M Muthumalage

1017

Acute Exposure to Nicotine-containing Electronic Cigarette Aerosols Augment Early Molecular Changes Related to Chronic Lung Diseases in Mice.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Anvi Bhatnagar; Nicholas James Georgiades

Mentor(s): Thivanka M Muthumalage

1018

Glutamatergic-Driven Behavioral Alterations in Lead-Exposed Larval Zebrafish

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Saraf Jalil Bhuiya

Mentor(s): Jennifer Freeman

1019

Development of a 5000 lbf Rocket Turbopump

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kamon Van Blong; Nicolas Michael Makovnik; Andrew Alberto Fontanetta;

Timothy Joseph Mareachen; Cole Alan Halupnik

Mentor(s): Dong won Lim

1020

ARES: A Comprehensive RF Testing Platform for Power Amplifiers and Antennas

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jose Abraham Bolanos Vargas

Mentor(s): Dimitrios Peroulis; Alex David Santiago Vargas

1021

Visualizing the Enemy: Artificial Intelligence Image Generators and the Reproduction of Counter-Insurgent Logics in the Western Imagination

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Reuben Lewis Bowie

Mentor(s): Miron Javionne Clay-Gilmore

1022

Measuring the Immune Response in Mouse Tumor Models Treated with Attenuated Salmonella Anticancer Bacteria Strains

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Lindsay Rebecca Brncick

Mentor(s): Qiuhong He

1023

Mental health effects of high-rise living

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Aiden Abhimanu Bunnell

Mentor(s): Carla B Rosell

1024

A Next-Generation Probiotic Strain Promotes Epithelial Wound Healing (Repair) after Physical Damage In Vitro

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Alvin Cai; Luke Wilson Heymann

Mentor(s): Arun K Bhunia

1025

Effects of Proximal Phosphorylation Sites on pThr181-Tau Antibody Affinity

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Gwendolyn Mae Enoy Carreon

Mentor(s): Jean-christophe Rochet

1026

Left Ventricular Strain During Chronic Hypertension in Murine Pregnancy Using 4D-Ultrasound Analysis

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jake Anthony Castro

Mentor(s): Elnaz Ghajar-Rahimi; Craig Goergen

1027

Purdue Aerial Robotics Team - Competition Airframe

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ethan Joseph Chace; Tanya Rathi; Kailey Christina Dvorak; Marvel Jiaxiang Zheng; Ryan Charles Harrison Schaeffer
Mentor(s): Niall Patrick Moloney

1028

Multifunctional carbon composite support structures for calorimeters in Future Circular Collider IDEA detector concept

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kevin Chang

Mentor(s): Sushrut Karmarkar; Andy Jung

1029

Paper-Based Duplex Assay for Early Cervical Cancer Screening

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Akansha Chauhan

Mentor(s): Jacqueline Linnes; Lucy Teberh Tecle

1030

Hydrolytically Degradable Hyaluronic Acid Hydrogels for Biomedical Applications

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Zhiyuan Chen

Mentor(s): Taimoor Hasan Qazi

1031

Ultra-processed food: industrial food processing and palatability effects on appetite and gastrointestinal transit time

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Yixin Chen

Mentor(s): Richard D Mattes

1032

Predicting the Future of Electric Vehicles: Adoption Trends, Reliability, and Market Growth in Washington State

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Maoxiong Chen; Abhinav Bondlela; Dane Alexander Kniola; Theodore Dean Schmidt

Mentor(s): Davi Cordeiro Moreira

1033

Heat Across Generations: Thermal Transgenerational Plasticity in a frog-biting mosquito

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Yu-Wei Cheng

Mentor(s): Ximena Bernal; Richa Singh

1034

AREG signaling decreases sensitivity to therapeutic PP2A activation in pancreatic cancer

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ella Rose Deanne Chianis
Mentor(s): Brittany Lee Allen-Petersen; Claire M Pfeffer

1035

Pulse Shaping With Integrated Chirped Photonic Bragg Gratings

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ethan Chieng Chiao
Mentor(s): Jason Dwight McKinney; Vivek vasantrao Wankhade

1036

Self-Handicapping in Purdue Undergraduate Honors Students

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Amanda Rose Colip; Colin Thomas O'Donnell; Triniti M Jenkins
Mentor(s): Temitope Folasade Adeoye Olenloa

1037

Big Tech's Authority and Governance

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Margaret Elizabeth Collins; Madeleine Yang
Mentor(s): Swati Srivastava; Alexander Thomas Wilhelm

1038

Twitchy Whiskers, Busy Brains

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Alyssa Yates Collins
Mentor(s): Jimmy Dooley

1039

Rotenone-induced acute miRNA alterations in extracellular vesicles produce Parkinson's Disease relevant mitochondrial dysfunction and neurotoxicity.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Matthew Thomas Corson
Mentor(s): Fatema Mustafa Currim; Jason R Cannon; Josephine Maria Brown

1040

Image-based Analysis of Silicone-Encapsulated Particle Attenuation

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Grace Margaret Costello
Mentor(s): Luis Enrique Garzon Sabogal; Maria Caterina Santagata

1041

Retesting Elderly Drivers

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sofia Pilar Cox
Mentor(s): Catherine Jean Shukle

1042

Impact of Arthrobacter Phage Genome Frameshift on Function and Protein Structure Prediction

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Therese Richelle Cunanan; Kyle Kai-Yuan Han; Sabrina Michelle Hardy

Mentor(s): Kari L Clase; Opeyemi Samuel Oduniyi

1043

Supervisor for Embedded Systems

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): William Rowan Cunningham; Kathy Niu

Mentor(s): Cole Aaron Nelson; Mark Johnson

1044

Artificial Intelligence: Marine Maneuvering

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sameeksha Sekhar Desai; Pranav Sanghi; Liam M McCormack; Steven James Van Hulle; Margulan Mukhametkarim; Ridge McCain Blankenship; Jamie Youngjin Cho; Joseph Dominic D'Alessandro; Nicholas Keir Wade; Benjamin Harris Ciliberto

Mentor(s): Brittany A Newell; Samuel Labi; Richard M Voyles

1045

Lipidomic Analysis of *Crocospaera subtropica* ATCC 51142 Under Diurnal Light-Dark Cycle and Nitrogen Conditions

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Aryaman Dewan; Malyka Ram; Priyanshu Datta Roy

Mentor(s): Uma K Aryal; Punyatoya Panda

1046

Examining Collegiate Athlete Activism and Its Impact on Higher Education

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sabina Kaur Dhindsa

Mentor(s): Stephanie Masta

1047

Optimization and Testing of Process Parameters for Void Reduction in Additive Manufacturing

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Rishipreet Singh Dhir; Rohan Jeyasothy

Mentor(s): Eduardo Barocio Vaca

1048

CRISPR Nanocarriers: Developing a Novel Method of Genome Engineering Using DNA Nanocage-Based Delivery of EnAsCas12f and CRISPR Associated Components

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Michael Stuart Dickinson; Eric Tate Vasser

Mentor(s): Leopold Noel Green

1049

Evaluating the Effectiveness of Transient Prioritization Algorithms for Follow-Up Observations in Modern All Sky Surveys

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Benjamin David Duttlinger; Elijah Scott Forbes; Michael Vic Paulson; Adina Ioana Margineantu

Mentor(s): Braden Lee Garretson; Danny Milisavljevic

1050

Coniferyl alcohol rescues aberrant root development phenotypes of Arabidopsis lignin mutants

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Maren Michele Eaton

Mentor(s): Clint C S Chapple

1051

Service Dogs for Military Veterans with PTSD: Research Design and Initial Data Collection for a Randomized Clinical Trial

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Shawna Lynn Edmiston

Mentor(s): Clare Jensen; Maggie O'Haire

1052

Bracket Bias: Predicting NCAA March Madness Outcomes and the Influence of Fan Loyalty

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kyle Steven Emgenbroich; Kaitlin Rose Otto; Ishita Tripathy; Vaibhavi Chamiraju

Mentor(s): Davi Cordeiro Moreira

1053

Mid-Air Autonomous Battery Exchange System

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Victor Ionut Ene

Mentor(s): Ran Dai; Yooseung Choi

1054

Examining Inflammatory Outcomes in Macrophage Cells Exposed to Specialized Pro-Resolving Mediators Bound to Carbon Black Nanoparticles

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jacob Randy Eyster

Mentor(s): Jonathan Shannahan; Arjun Pitchai

1055

Design and Development of the Super Capacitor Project for Extra Robot Chasis Power

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jiaming Fang

Mentor(s): Abolfazl Hashemi

1056

How can a Python-based application with a user-friendly interface and remote computation capabilities enhance the efficiency, accessibility, and scalability of calculating acoustic indices for

ecologi

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ryan M Feller

Mentor(s): Kristen Marie Bellisario

1057

Evaluating the Effect of the Location of Type III Secretion System Genes on Agrobacterium-Mediated Transformation Efficiency

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Elizaveta Filippova

Mentor(s): Stanton B Gelvin; Lan-Ying Lee

1058

Pregnant and Waiting: The Alarming Delays in Indiana's Prenatal Care System

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Alexandra Sophia Finlayson

Mentor(s): Kathryn Jean LaRoche

1059

Sublethal Impacts of Bio-Ex ECOPOL A 3%, a Fluorine-Free Foam Alternative, on American Bullfrog Larvae (*Lithobates catesbeianus*) activity.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jonathan Lester Flinn

Mentor(s): Jason T Hoverman

1060

Design and Implementation of a 2.4 GHz Local Oscillator for Energy-Efficient Wi-Fi RF Receivers in Low-Power Applications

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Manuel Ashraf Melad Gad; Kerollos Ehab Matta Yanny

Mentor(s): Archana Dharanipragada; Seyedehmarzieh Rouhani; Mark Johnson; Swapnil Bansal

1061

Community health workers in supporting lung cancer screening in the United States: A systematic review

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Rebecca Gao

Mentor(s): Haocen Wang

1062

Microscale 3D Printing using Volumetric and Holography Methods

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Anika Siya Garg

Mentor(s): Liang Pan

1063

Forecasting Nike's 2025 Earnings: A Data-Driven Approach

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Aditya Ghorpade; Shreem Bhavesh Amin; Ronak Bhagia; Gabriel E Calleja Sanchez; Jayanth Madhava Kurup
Mentor(s): Davi Cordeiro Moreira

1064

Simulated Annealing for CMS Primary Vertexing demonstrates promise of Quantum Annealing

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ishan Goel
Mentor(s): Andrew James Wildridge; Andy Jung

1065

Predicting The Functions of Hypothetical Proteins Using Pymol and Alphafold

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Bhoomika Kumar Gowda; AJ DiAndreth; Milena Campos Prada
Mentor(s): Kari L Clase; Opeyemi Samuel Oduniyi

1066

"Enhancing Purdue Grand Prix Training Through Racing Simulation: A Virtual Approach to Karting Performance"

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Giancarlo Sean Guccione; Anthony Tan
Mentor(s): Michael Douglas Johnson

1067

Engineering Materials for Thermal Transport of Semiconductor Packaging

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Vikash Gunalan
Mentor(s): Ritwik Vijaykumar Kulkarni; Amy M Marconnet

1068

Purdue Aerial Robotics Team - R&D Avionics

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Doha Bahaa Eldin Hafez; Arsanious Waseem Kamel Boushra; Vikram J Checka; Stephen Michael Tushentsov; Madison Marie Statler; Seungho Han; Soren Christophe Turner; Alexander Sau Hang Ching
Mentor(s): Niall Patrick Moloney

1069

The Boilermaker Food Security Project: Multidimensional Analysis of Campus Food Experiences

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jarren Haggard; Juniper Rodriguez
Mentor(s): Sarah Renkert

1070

Elements of Art: pXRF Testing and Exhibition of Purdue

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jarren Haggard

Mentor(s): Harold Kory Cooper; Kirstin Marie Gotway; Lana J Newhart-Kellen

1071

The Sound of Blood Meal: Exploring the Acoustic Preferences of a Frog-Biting Mosquito

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Nina Rose Hall

Mentor(s): Ximena Bernal; Richa Singh

1072

Enhancing Brand Recognition and Market Positioning Case Study: The Studio at Miracles Fitness

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Chloe Grace Hardesty; Grace E Bedka; Whitley Claire Judd; Max Jatin Arnold; William Charles Young

Mentor(s): Stephen R Leitch

1073

How Lifestyle Factors Impact Physical and Mental Symptoms

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Payton Victoria Harrington; Renee Nicole Chua

Mentor(s): Mark Wilson

1074

Cloning and Characterizing a GH43 Enzyme from Bacteriodes for Arabinoxylan Degradation

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Yara Zaidoun Hijaz

Mentor(s): Stephen R Lindemann; Anurag Rajendra Pujari

1075

Novel Superabsorbent Polymers for Concrete 3D Printing

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Daniel Steele Hiller

Mentor(s): Kendra A Erk; Akul Seshadri

1076

The impact of different types of high-fat diet on energy consumption, weight gain, and hypothalamic inflammation in male and female rats

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Natalie Chyrystine Hoffman

Mentor(s): Brent Benjamin Bachman; Kimberly Kinzig

1077

High throughput testing for ductility and hydrogen embrittlement

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Gwendolyn E Hofman

Mentor(s): David Bahr

1078

How telemedicine platforms can be leveraged to improve mental health accessibility and outcomes for teens and young adults in rural areas

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Reetika Ranjeet Hogade

Mentor(s): Richard D Johnson; Thomas J Rickert

1079

Development of Synodic Orbit Cyler Targeting the Trojan Asteroids of the Sun-Jupiter L4 Lagrange Point

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jack William Hulbert; Shaun Nethan Artzi; Matthew Robert Dillman; Yanchen Liu; Adam David Rushdy

Mentor(s): Kenshiro Oguri; Paulo Ramirez; Travis James Hastreiter

1080

CVGM - Computer Vision and Generative Models

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Julianne Quin Iaccarino; Basil Khwaja; Ian Owen Ou; Ibrahim Issa Abdullah

Mentor(s): Yung-Hsiang Lu; Monika Tomar

1081

Developing a Collaborative Coding Framework for Onboarding Undergraduate Researchers

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Naomi Elizabeth Islas; Sarah Colleen Buwick

Mentor(s): Bradley Dilger

1082

Development and Exploration of Existing 5G and 6G Standards

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Rohan R Iyer; Andrew Owen Fewell; Aaron David Slamovich; Raghav Aggarwal; Justin Yunzhi Lin

Mentor(s): Chih-Chun Wang

1083

Strategies for Implementation of Microelectronics in Engineering Education

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Camille Leigh Johnson

Mentor(s): Jason Wade Morphew

1084

Evaluating AI's Ability to Detect Literary Symbolism

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Mert Karabulut

Mentor(s): Linda E Haynes

1085

Methods of investigation into the xylem sap microbiome of *Ralstonia solanacearum* resistant and susceptible tomato species.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Colin Francis Kelly; Olivia Anne Walker

Mentor(s): Sana Anum Mohammad

1086

The Diversity of Saprotrophic Fungi Degrading Environmental and Anthropogenic Substrates

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Samantha Nicole Kessel

Mentor(s): Daniel B Raudabaugh

1087

The impact of colostrum versus milk replacer feeding on the morphological development and proliferation of cells in the small intestine of neonatal piglets

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ellie Grace Ketcham

Mentor(s): Theresa M Anderson; Linda Marie Beckett

1088

DDR4 DRAM Controller Design for Accelerated Matrix Processor

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Dhruv Roopchand Khatri; Tri Than

Mentor(s): Sooraj Chetput Venkataraghavan; Malcolm Lloyd Seib McClymont; Timothy Francis Hein; Mark Johnson

1089

Altering Affect and Emotional Reactivity Through Exercise and Mindfulness

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Wojciech Jan Kielbus

Mentor(s): Shih-chun Kao; Salim Ibrahim Onbasi

1090

Impact of a RAGE antagonist on tendon biomechanical properties in a mouse model of type 2 diabetes

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Joshua Dongjin Kim

Mentor(s): Chad C Carroll

1091

A Scoping Review of Patient-Centered Communication in Healthcare: an International Comparison of Curriculum and Recommendations

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Riley Ann Knudsen

Mentor(s): Bethany McGowan

1092

Dietary Fibers and the Gut: A Functional Approach to Microbiome Assessment

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Norah Riley Kopolow

Mentor(s): Stephen R Lindemann

1093

Assessing Lead Levels in Human Bone with Portable XRF Technology

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Grace Ann Kowis

Mentor(s): Linda Nie; Catherine Jean Shukle

1094

Accelerated Matrix Processor - Convolution Acceleration Architecture

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Saandhya KPS Mohan

Mentor(s): Malcolm Lloyd Seib McClymont; Mark Johnson; Anand Raghunathan; Fan Jing Hoon

1095

Predicting GDP Growth: Using Data - Driven Insights to Uncover Economic Trends

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Anisa Krvavac; Adam Taesoo Bae; Ian Spencer Lutz; Jacob Matthew Embleton;
Alex Lukowiecki Caridi

Mentor(s): Davi Cordeiro Moreira

1096

Variable Bragg x-ray beam splitters

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Madeline Zofia Kwasniewski

Mentor(s): Stephen M Durbin

1097

APPS: Style Transfer

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Bhavya Lakhina; Kathleen Elane O'Sullivan; Gavin Noel Hendrix

Mentor(s): Carla Zoltowski; Fengqing Zhu; Soudabeh Taghian Dinani; Edward J Delp

1098

How pasture-raised laying hens impact the abundance of surrounding wildlife in Northwestern Indiana

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Claire Elizabeth Lang

Mentor(s): Darrin M Karcher; Sara Elizabeth Cloft

1099

I2C Verification Using Universal Verification Methodology

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Bradley Reed Lawrence

Mentor(s): Mark Johnson

1100

Analysis of Neutron-Induced Degradation in Commercial Optical Transceivers

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jocelyn E Lee

Mentor(s): Hannah Pike

1101

Forecasting Monthly Bag Distribution: Improving Delivery Efficiency Through Data

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Josiah John Linnemann

Mentor(s): Davi Cordeiro Moreira

1102

Law of large number of the maximal particle in a branching system of random walks in random environment

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Xiaoyu Liu

Mentor(s): Jonathon R Peterson

1103

The Relationship Between Task-Irrelevant Variability and Sensorimotor Adaptation in Speech

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Justin Edward Logar; Ashley Elaine Fissel

Mentor(s): Kwang Seob Kim; Satyajit S Ambike

1104

A Machine Learning Approach to Estimating Evolving Flood Hazards

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Brenna Kari Losch

Mentor(s): Mohammad Ahmadi Gharehtoragh; David R Johnson

1105

Analyzing Biofilm Growth on PVC-coated Magnetic Beads for High-throughput Microbiome Applications

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Mallory A Luse

Mentor(s): Caitlin Rose Proctor; Arval Viji Elango; Roland Conrad Wilhelm

1106

The Effects of Various Materials on the Reclamation and Germination of Fungal Spores.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Robert James Lyon

Mentor(s): Daniel B Raudabaugh; Mary Aime

1107

Advancing Space Exploration with Origami-Inspired Robot Design and Prototyping

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sishir Mahavadi

Mentor(s): Ran Dai

1108

Minimizing Inhibition of qPCR Amplification in Water Samples with Variable Metal Content

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Lillian Grace Maldia

Mentor(s): Caitlin Rose Proctor

1109

Does Airplane Pollution Elevate Elemental Lead Concentration in Soil?

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jacob Alan Malone

Mentor(s): Ellen M Wells; Jung Hyun Lee

1110

SRAM on a System-on-Chip

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Antonios Maniatis

Mentor(s): Timothy Francis Hein

1111

Model optimization for nanodevices and functionalized material

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jeremy Jingrui Mao

Mentor(s): Manas Pratap; Tillmann C Kubis

1112

Characterization of Envelope Following Responses to Complex Stimuli

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jax Patrick Marrone

Mentor(s): Edward L Bartlett; Meredith Christine Ziliak

1113

Indigenous Cultural Preservation and Economic Development through Tourism- A Scoping Review

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Mason Talavou Al Martin

Mentor(s): Jason Ware; Scotty Secrist

1114

Advanced Imaging Techniques for Characterizing Bound Water, Porosity, and T1 Relaxation

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Vedha Masuraha

Mentor(s): Rachel Kathleen Surowiec

1115

Analyzing Anisotropies in Supernova Remnant Simulations under Magnetic Fields

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kaeli McGinty

Mentor(s): Paul Cole Duffell

1116

Understanding Experiences and Beliefs Surrounding Cervical Cancer Among Women Experiencing Homelessness

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Shivani Naayak

Mentor(s): Natalia Maria Rodriguez; Lara Nicole Balian; Rebecca A Ziolkowski

1117

The Role of Fumarase in DNA Damage Repair Mechanisms

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ainsley Marie Newett

Mentor(s): Ann L Kirchmaier

1118

The Impact of Early Caregiver Linguistic Input on Children's Later Speech Sound Development

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Emma Niecikowski

Mentor(s): Arielle Borovsky; Philip Robert Curtis

1119

The Impact of Corn Hybrid and Nitrogen Fertilization on Specific Root Architecture Parameters and Root Exudation

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Travis James Nixon

Mentor(s): Carson Howard Pearl; Yichao Rui

1120

Traumatic Brain Injury and Contact Sports on Cognitive Performance

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Oyindamola Olutofunmi Odelowo

Mentor(s): Paul A Robbins

1121

Mechanosynthesis of Urea-Gypsum Cocrystals: a Plant Study

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Tovia Grace Owens

Mentor(s): Rose Prabin Kingsly Ambrose; Vidya Kanaganamaradi Nagaraju

1122

Melodic Medicine: Exploring the Impact of Music Therapy on Individuals with Aphasia

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Anjali S Patel

Mentor(s): Carla B Rosell

1123

Impact of Various Songs as Waking Stimuli on Female College Students

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Valentina Victoria Sienna Perera

Mentor(s): Linda E Haynes

1124

PoliticalLens: An R-shiny Application to Evaluate Political Bias in American News

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Gabriel L Ponsot; Caleb Zachariah Brunton; Umar Yasser; Conrad Sebastian Lin

Mentor(s): Matthew Lanham

1125

Investigating the Role of ATP2b1a in Neutrophil Migration

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Caroline Powell

Mentor(s): Daniel Kim

1126

Ph altering drug on Ebola Virus Cytoplasmic Entry

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Cassidy Lynn Poynter

Mentor(s): Robert V Stahelin; Hannah M Woods

1127

HorizonFusion: Seamless Transitioning Between Near and Far

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Mridu Prashanth

Mentor(s): Voicu S Popescu

1128

Expected Value Returns when Sports Betting with Probability and Statistics

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Grant Pryor

Mentor(s): Linda E Haynes

1129

Machining Process Monitoring of Additively Manufactured Fiber-Reinforced Composites

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Varunavi Kaveri Raghuraman

Mentor(s): Garam Kim; Eduardo Barocio Vaca

1130

Design, Manufacture, and Test of a Micro Gas Turbine.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kavina Tirumamagal Rajan; Anjali Patel

Mentor(s): Suman Chakraborty

1131

Investigating the Effects of Chemogenetic Manipulation of the Lateral Habenula (LHb) on Social Behavior in Scn2a-Deficient Mice

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Rineet Ranga

Mentor(s): Brody Alan Deming

1132

Determining Antimicrobial Resistance in Bovine Respiratory Disease Bacteria

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Mackenzie Grace Roche

Mentor(s): Timothy Johnson; Audrey Christine Ellis

1133

Thermal Fatigue of Adhesive Bonding in Modular Additively Manufactured Fiber-Reinforced Composite Tooling

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Lucas Emanuel Rodrigues

Mentor(s): Garam Kim; Eduardo Barocio Vaca; Paul Kyu-Hwan Park

1134

Identifying sex-dependent metabolic signatures in IBD

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Shanlin Ruan

Mentor(s): Boyu Jiang; Priyanka Baloni

1135

Electrical Characterization of Defects in CuIn_{1-x}Ga_xSe₂ (CIGSe) Solar Cells

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Yutika Vasudeo Sawant

Mentor(s): Juan Sebastian Alban Dominguez; Rakesh Agrawal

1136

Depth Estimation Model for Autonomous Driving

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Sarah Sawhney; Taehoon Kim; Ian Tseng

Mentor(s): Shreya Ghosh

1137

Genetically engineering Anti-HER2 Car-Macrophages and in-vivo optical imaging of 4T1.2-HER2T breast cancer mouse model treated with bacteria-enhanced immunotherapy

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Abigail Wang Schroeder
Mentor(s): Qiuhong He

1138

Structural and Functional Analysis of Ras Isoforms in Phospholipase C-epsilon Signaling

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Canyen Locke Setser
Mentor(s): Ketaki A Mahurkar; Angeline M Lyon

1139

Design of Logic-Based Genetic Circuits Using RNA Aptamers for Inflammatory Bowel Disease Biomarker Response.

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Prisha Nitin Shethia
Mentor(s): Derrick Dankwa; Leopold Noel Green

1140

Exploring Hawaiian Grammar: Structure, Adaptability, and Linguistic Preservation

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Prasiddhi Shivakumaran
Mentor(s): Elena Benedicto

1141

AI-Based Walkability Ecosystem: A Personalized, Social and Adaptive Solution to Urban Mobility and Public Health

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Diya Singh
Mentor(s): Gaurav Nanda; Jaeil Lee; Xinran Y Lehto; Mark R Lehto; Elizabeth A Richards

1142

Modelling Thermophysical Properties and IMFs of Refrigerant Mixtures

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Nishtha Singh
Mentor(s): Riley Bradley Barta

1143

A Chiplet Communication Protocol for Post-Tapeout Heterogeneous Integration

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Devin Singh; Michael Jeffery Dick; Andrew Michael Lykken; Luca Renato Simoni
Mentor(s): Cole Aaron Nelson; Mark Johnson; Jacob Chappell; Conor James Green

1144

GUI-Based Segmentation and Quantitative Analysis of Aortic Aneurysms in M-Mode Echocardiography

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Samskrithi Sivakumar
Mentor(s): Craig Goergen; Shubh Parag Mehta; Benjamin Landis

1145

Characterization of the contribution of the Mediator complex subunit MED23 to H3K27me3 homeostasis in *Arabidopsis thaliana*

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Shelby Sliger

Mentor(s): Joseph P Ogas; Jiaxin Long; Clint C S Chapple; Pete E Pascuzzi

1146

Design of an 8-Bit Digital-to-Analog Converter with Thermometer Decoder and Custom Two-Stage Operational Amplifier in TSMC180 Technology

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Nathaniel A Smith

Mentor(s): Dali Lai

1147

A Patient Decision Support Tool for Simplifying Medical Information

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Cooper William Springs; Ethan Mathew Lebon; Ian Spencer Lutz; Aruneeth Ranjan Sil

Mentor(s): Matthew Lanham

1148

The Cytotron: A Revolutionary Approach to Non-Invasive Cellular Therapy

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Katelyn Elizabeth Stetter

Mentor(s): Beth Elly Baumgartner

1149

Improving NK Cell Function in Solid Tumors for Immunotherapy

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Drake William Strait; Kyle Kai-Yuan Han

Mentor(s): Sandro Matosevic; Kumar Rishabh

1150

Genetic Insights into the Conservation of the Western Chicken Turtle

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Ethan Scott Streckfuss

Mentor(s): Natalie Marion Allen

1151

Analyzing Excavated Jewelry from Fort Ouiatenon

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Kyah Elizabeth Sturm

Mentor(s): Harold Kory Cooper

1152

Can Radio Data Help Us Understand the Late-Time Optical Emission of Core-Collapse Supernovae?

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Madeline G Taylor

Mentor(s): Danny Milisavljevic

1153

Time-compressed discourse comprehension in young and older adults: behavioral and fNIRS analyses

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Taylor Alexis Teague

Mentor(s): Maureen Joyce Shader

1154

DDR4 DRAM Controller Design for Accelerated Matrix Processor

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Tri Than

Mentor(s): Sooraj Chetput Venkataraghavan; Mark Johnson; Timothy Francis Hein; Malcolm Lloyd Seib McClymont

1155

SCALE HI-AP: Spatially Identifying Defects in 2D-Logic Transistors via Photocurrent Imaging

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Bradon Rowan Timms

Mentor(s): Thomas Edwin Beechem; Sahej Sharma

1156

Characterizing the Spreading Dynamics of High-Tg Polymer Micelles at the Air-Water Interface for ARDS Lung Surfactant Research

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Calla Grace Tucker

Mentor(s): You-Yeon Won

1157

Maximizing Accuracy in Longitudinal Microbiota Analysis: A Mixed-Model Approach

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Anjali Vanamala

Mentor(s): Tzu-Wen L. Cross; Anna R Clapp

1158

Finite Element Analysis in Indentation at Different Constraints

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Nivrithi S Varghese

Mentor(s): Jia-Huei Tien; David F Bahr

1159

Cost-Effective Recombinant Protein Markers for SDS-PAGE and Western Blot Analysis

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Karthik Varigonda

Mentor(s): Nicholas Noinaj

1160

Design and Experimental Analysis of an Origami-Based Compliant Mechanism for Deployable Space Antennas

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Tanya Vijay; Sishir Mahavadi; Adina Ioana Margineantu; Prisha Rachakonda; Jacob Daniel

Mentor(s): Ran Dai

1161

Extraction of Alkali-Soluble Arabinoxylan

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Lea Camille Vojslavek; Han Ye

Mentor(s): Stephen R Lindemann

1162

Probing Mass Transport in an Acoustically Levitated Droplet with Novel Electroanalytical Techniques

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Amber K Wang

Mentor(s): Patrick James Herchenbach; Lynn Elizabeth Krushinski; Jeffrey Edward Dick

1163

Structural characterization of sn-isomers of acidic phospholipids using mass spectrometry

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Haven Nicole Wilson

Mentor(s): Sara Mohamed Amer

1164

A Longitudinal Analysis of Developmental Changes in Twitch Patterning during REM Sleep

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Claire Wolfer-Jenkins

Mentor(s): Jimmy Dooley

1165

Detecting SARS-CoV-2, CPV, and CDV in River Otters Using qPCR

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Jonica Lynn Wooton

Mentor(s): Jonathan Pasternak; Sarah M Innis

1166

Hybrid Green Hydrogen & Small Module Reactor Technologies for Sustainable Mining

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Maxim Nickolas Yamilov; Olivia Chen; Marina Mercedes San Martin Rossano;

Abdullah Alkazemi
Mentor(s): John W Sheffield

1167

Tracking Cognitive Strategies using EEG signals

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Peter Zakariya

Mentor(s): Yu-Chin Chiu

1168

Investigating the mediating effects of ESG for corporate equity and financial performance in specific levels: A case study of China's A-share listed companies

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Yuhang Zhai; Runjie Wu

Mentor(s): Michael S Delgado

1169

Adult Intelligibility Ratings of Preschoolers With and Without Speech Sound Disorders

Presentation Time: Session 1: 9:00-10:00am

Presenting author(s): Zoe Zhang; Jillian Grace Robbins; Lauren Mae Hammond

Mentor(s): Francoise Brosseau-Lapre

SECOND POSTER SESSION | 10:30AM-11:30AM

1200

CAR-Macrophage engineering to treat immunologically cold breast cancer in VNP20009 bacteria-enhanced immunotherapy

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Hannah Faith Abdon; Abigail Wang Schroeder

Mentor(s): Sung-Jin Kim; Hyunsup Han; Qihong He

1201

Bacteriophage Skitty: A Comparative Study Between the MicroProtein Gene 73 and Defined Gene 56

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Leilani Grace Agngarayngay; Julia Lauren Marino; Samhita Mysore Shantharam; Alexis Lucille Ador Bernal

Mentor(s): Kari L Clase; Julia Ann Simler

1202

SoCET I2C Controller Design

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Fatma Mohamed Ahmed Youssef Alagroudy; Yara Ahmed Mohamed Abbas

Mentor(s): Cole Aaron Nelson; Mark Johnson

1203

Mechanisms of tuning cytotoxic T cell activation via artificial triggering

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Alex James Alonzo

Mentor(s): Joy Wu; Shalini T Low-Nam

1204

The role of weeds as a non-crop habitat for aphid pests in high tunnel systems

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Isabela I Arias

Mentor(s): Laura L Ingwell; Samantha Willden

1205

Risk, Reward, and Frustration: What Drives Decision-Making?

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Maria Paula Armenta

Mentor(s): Sebastien Helie

1206

Enhancing Data Efficiency in 3D Nuclei Segmentation for Light Sheet Microscopy Data using Deep Learning

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Velan Arunmozhi; Ian Kwan Yin Lam

Mentor(s): Linlin Li

1207

Exploration of the Intersection of Mental Health and Lifestyle Factors Hartford city, IN

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Tamia A Austin

Mentor(s): Ellen M Wells

1208

Metal-Insulator-Metal Capacitor Manufacturing and Design

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Dilay Aygun; Ryan Prado Bailey; Charlita Sinmak; Matyas Kubon; Laksh Nagpal; Ashwin Amit Parab

Mentor(s): Zhihong Chen; Joerg Appenzeller

1209

"Looking for friends...." A Case Study of the Grooming Strategies and Victim Responses for one Offender and 500 Potential Victims

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brycen Jesse Baldwin; Caroline Marie Sponhauer

Mentor(s): Kathryn Seigfried-Spellar

1210

Developing an MRI Compatible Loading Device for Real Time Mapping of Cortical Bone Mechanical

Properties via UTE-MRI

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Grant Andrew Belush

Mentor(s): Peter Asiwaju Olayooye; Rachel Kathleen Surowiec

1211

A Genomic Analysis of Global House Dust Mite Allergen Diversit

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Sarah M Bennett

Mentor(s): Qixin He; Pavel Borisovich Klimov

1212

Lift Analysis on Diamond-Shaped Airfoils in Supersonic Free-Stream Velocities

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Tanuj Bhat; Krish Samir Mehta; Tanush Ashok; Edward X Sun; Arjun Aneja

Mentor(s): Curtis Earl Marshall; Brandon C Chynoweth

1213

Headed rebars vs. headed studs for precast concrete connections

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Sanath Bhavankar

Mentor(s): Deepak Suthar

1214

The Effect of Diet on Social Behavior in Mantled Howler (*Alouatta palliata*) and Spider Monkeys (*Ateles geoffroyi*)

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Elaina Caroline Bowlds

Mentor(s): Stacy Lindshield

1215

The Isolation of a Novel *Cystobasidium* sp. Using a Differential Density Centrifugation Method

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brieana Elise Branton

Mentor(s): Daniel B Raudabaugh; Mary Aime

1216

Isolating Bryophyte-Associated Fungi and Assessing Their Pathogenic Potential

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Josephine Capwell Brigham

Mentor(s): Daniel B Raudabaugh

1217

Person Over Product: Prioritizing Customer Relations Over Product Knowledge Ensures Business Longevity

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Sarah Grace Burris

Mentor(s): Catherine Jean Shukle

1218

Using Music Therapy to Uncover Asian/American Teen Archetypes

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Gael Calderon Sermenon; Michelle Wan

Mentor(s): Stewart C Chang Alexander; Pamela Sari

1219

System-on-Chip Verification - Applying UVM to Verify RTL Designs

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Siddarth Balaji Calidas

Mentor(s): Vishnu Chaithanya Lagudu; Isaac P Hagedorn; Mark Johnson

1220

Decoding College Costs: How Are Rising Tuition Prices Shaping Access and Profit?

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Rebecca Grace Caliendo; Nayfa Johan

Mentor(s): David L Hummels; Karis Pressler

1221

SCALE HI-AP: Electromigration Failures in Cu-micro bumps with Sn-Ag solder caps

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Caroline Marie Cameron

Mentor(s): Shubhra Bansal; Jakob Isaiah Ramos

1222

Multiphase Electrochemiluminescence Microscopy of Competitive Reactions

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Daniel Michael Carrel

Mentor(s): Brady Robert Layman; Megan Leigh Hill; Jeffrey Edward Dick

1223

Examining the Role Gender Egalitarianism has on Domestic Violence Policies

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Gabrielle Loretta Casement

Mentor(s): Rosalee Clawson

1224

The Role of Transcription Factor Meis2 on Horizontal Cell Survival and Migration

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Jonah Chang

Mentor(s): Patrick Kerstein

1225

Consumption of Short-Form Content on U.S. College Students' Political Opinion

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Jin-Jia Chang; Sebastian Montano Elbancol Knill; Po-Chin Yang
Mentor(s): Haiyan Li

1226

Stable isotope analysis of archaeological bone for diet reconstruction: A guide to bone preparation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ava Grace Chapman; Caroline Margaret Sozio

Mentor(s): Melanie M. Beasley

1227

Uncovering spatial temporal bone quality changes in progressive chronic kidney disease: Is water a new biomarker for fracture risk?

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Aurelia Azifa Chelfannisa

Mentor(s): Rachel Kathleen Surowiec

1228

Integrating SIMT and Scalar Cores to Manage Control Flow Divergence

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Daniel Choi; Hassan Al-alawi; Hunter A Mccollough; Justin Yasuumi; Armaan Kanchan; Jerry Ronald Chen; Viet Khoi Pham Khac; Shresth Mathur; Abhiram Saridena; Muhammad Zohaib Ali

Mentor(s): Sooraj Chetput Venkataraghavan; Mark Johnson

1229

Scalable tellurene/graphene heterostructure for wearable IR/NIR photodetectors

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Khushi Choksi

Mentor(s): Wenzhuo Wu; Hettiarachchige D Perera

1230

From Equations to Interpretations: An Engineering Student's Journey in Qualitative Research

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Thais da Silva Oliveira Mendes

Mentor(s): Leonardo Pollettini Marcos; Kerrie Douglas

1231

Impacts of dengue virus nonstructural protein NS1 on viral infectivity

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Bella Kristina Demantes

Mentor(s): Mercy Omotinume Orukpe Moses; Richard J Kuhn

1232

Enhancing Supply Chain Efficiency with Predictive Supplier Modeling

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Rileigh Ann Dethy; Daniel Robert Gallagher

Mentor(s): Xing Wang

1233

SCALE HI-AP Constitutive Evaluations of High-Temperature SAC-based Solder and Considerations for Thermal Stress Tester Design

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brendan Duffy

Mentor(s): Sean Yenyu Lai; Ganesh Subbarayan

1234

Weather Station

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Jana Mohamed Ga Elsayed; Leen Alshaikh

Mentor(s): Steven R Dunlop; Stewart F Bauserman

1235

SPC Metal Insulator Metal Team

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brandon Anthony Farber; Hao Tian Pang; Hsun-Ti Chiang; Nora Miqueleiz-Alonso; Prateek Sinha

Mentor(s): Huan wen Mao

1236

The Effect of COVID-19 on Second-Year Engineering Students

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Amanda Heidi Feeley

Mentor(s): Eric A Holloway; Beth M Holloway; Fanyi Zhang

1237

Effects of Neutrons and Protons on Integrated Circuit Molding Compounds

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Andrew Owen Fewell

Mentor(s): Peter Bermel; Allen L Garner

1238

The Science of Resilience & Related Concepts: A Multi-Level Approach

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kate Elena Fitzsimmons

Mentor(s): Bradley J Alge

1239

SCALE HI-AP: Evaluation of Radiation Dosage and Microelectronic Reliability in the Cislunar Domain

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Luke Joseph Fortner

Mentor(s): Muhammad A Alam

1240

Continual Learning for Calorie Estimation of Food Items

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Connor Bradley Frey; Joonyeoup Kim; Piotr Stanislaw Nabrzyski; William Benjamin Tao

Mentor(s): Fengqing Zhu; Carla Zoltowski; Edward J Delp; Soudabeh Taghian Dinani; Siddeshwar Raghavan

1241

Beam Shaping for Vortex Solitons in a 2D Cesium BEC

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Joshua Matthew Friedman

Mentor(s): Chen-Lung Hung

1242

Toward a Seamless User Authentication

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Andrea Gajic

Mentor(s): Sudip Vhaduri

1243

Make America Christian Again: Christian Nationalism and Voting for Donald Trump in the 2024 Presidential Election

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Fanxi Gao; Yuexin Jiang

Mentor(s): Haiyan Li

1244

Evaluating the effects of genomic selection for heat stress tolerance on the behavior of in utero heat stressed piglets after weaning and transportation.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Alejandra Maria Garavito; Shayna Jayne Morris

Mentor(s): Luiz Fernando Brito

1245

Designing and Integrating Biologically Realistic Neuron Models into Artificial Neural Networks: Impacts on Efficiency, Robustness, and Interpretability.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Walker Kumar Gollapudi

Mentor(s): Linda E Haynes

1246

Data Visualization of the Semiconductor Supply Chain

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Paraj Goyal

Mentor(s): Tho Le

1247

Speech Variability, Speech Perception, and Vocabulary Skills in Children With and Without Speech Sound Disorders

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Emma J Hall; Ella Nicole Birgel

Mentor(s): Francoise Brosseau-Lapre

1248

Investigating fibroblast response to porous hydrogel implantation in a mouse model of volumetric muscle loss.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kyle Jeffery Heaton

Mentor(s): Taimoor Hasan Qazi

1249

Improving performance of boards hosting FPGAs for ECE Labs.io

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brett Michael Heckman

Mentor(s): Junfei Li

1250

Analyzing Fan Predictions of Basketball Bracket Winner's: Driven by Fan Brackets and Affinity of Teams

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Adlyn Aliette Hernandez

Mentor(s): Davi Cordeiro Moreira

1251

A Proposed Planting Palette For Shenandoah National Park

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Anna Danielle Hildebrand

Mentor(s): Aaron W Thompson

1252

SCALE HI-AP : Exploring 2D Tellurium for Advanced Pressure Sensors in Extreme Underwater Environments

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Remley Grace Hooker

Mentor(s): Peide Ye

1253

SoCET digital circuit design

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Weichih Hsieh

Mentor(s): Abinands Ramshanker

1254

Investigating Additive Manufacturing with Soil-Based Materials for Sustainable Construction

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Tai S Hsu

Mentor(s): Maria Caterina Santagata; Tejas Gorur Sreenivasa Murthy; Luis Enrique Garzon Sabogal

1255

Analysis of Icosapent Ethyl Eligibility in Post Acute Myocardial Infarction Patients

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Faiz M Inamdar

Mentor(s): Ellen M Schellhase

1256

SCALE HI-AP: Thermo-mechanical Reliability of Metal Embedded Chip Assembly (MECA) Package

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Parker Joseph Jeffrey

Mentor(s): Shubhra Bansal

1257

Molecular Effects of Chlorpyrifos Exposure in Pon-1 (-/-) and Wildtype Rat Models

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Dia Dipen Jhaveri

Mentor(s): Jason R Cannon

1258

Investigating Protein-Protein Interactions for Functional Assembly in Actinobacteriophage GoldDust

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Manya Devang Kadiwala; Abigail Nguyen Origer; Collin Jayson Kao; Elyse Youngstedt

Mentor(s): Kari L Clase; Opeyemi Samuel Oduniyi; Julia Ann Simler; Marcelo Inaki I Guerrero Montalvan

1259

Polarity establishment and cytoskeleton rearrangement in early cotton fiber development

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Maxwell Murphy Kahle

Mentor(s): Daniel B Szymanski; Michael Charles Wilson

1260

Optimizing Enrollment Processes: Leveraging Automation for Operational Efficiency and Multilingual Support

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Parth Kapila

Mentor(s): Davi Cordeiro Moreira

1261

The Development of Advanced Bimanual Object Manipulation in a Natural Setting

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Riya Ashwin Karpe

Mentor(s): Laura J Claxton; Paige A Thompson

1262

Effect of temperature on the Ti₃AlC₂ MAX etching and synthesis of two-dimensional Ti₃C₂Tx MXene

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Prerona Kaushik

Mentor(s): Babak Anasori; Anupma Thakur; Nithin Chandran Balachandran Sajitha

1263

Comparing the Role of PP2A-B56a and PP2A-B55a Activation in EGFR Signaling in PDAC

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Emma Frances Kay

Mentor(s): Claire M Pfeffer; Brittany Lee Allen-Petersen

1264

Modeling Deformable Cells Using Spherical Harmonics

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Alexander G Kelley

Mentor(s): Kaitlyn T. Hood

1265

Finite Element Analysis of Aperiodic Einstein Tile System

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brian Arild Kelly

Mentor(s): Thomas H Siegmund

1266

Investigation the Effect of UV Exposure on Carbon Fiber-Reinforced Thermoplastic Composites

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Haneul (Sky) Kim

Mentor(s): Garam Kim; Rishabh Pammi

1267

Design and Development of a Daughter Board for Caravel eFabless Chiplet Integration

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Seokjae Kim; Vivek Matta

Mentor(s): Matthew A Swabey; Weijing Sebastian Chen; Vishnu Chaithanya Lagudu

1268

Racing Line Optimization with Adaptive Grip Estimation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Junyoung Kim; Christian A Choi; Aroldo Fernando Lugo Quintanilla; Nicholas Gentry Viardo

Mentor(s): Samuel Labi; Andres Felipe Hoyos Moreno

1269

Predicting Peoples' Perfect Bracket: A Data-Driven Approach to March Madness Forecasting

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Lauren Mackenzie Knowlton

Mentor(s): Davi Cordeiro Moreira

1270

Experimental study on post-installed anchors under shear loading

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Nickolas Koe

Mentor(s): Deepak Suthar

1271

Exploring Older Adults' Privacy Concerns In Robot-Mediated Data Collection

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Avery Kruppe

Mentor(s): Sooyeon Jeong; Anastasia Kouvaras Ostrowski; Rua Mae Williams

1272

Burnout of Museum Workers

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Olivia Madison Krzyzanowski

Mentor(s): Mark Wilson

1273

Thermal Fatigue of Adhesive Bonding in Modular Additively Manufactured Fiber-Reinforced Composite Tooling

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Meghana Kumar; Lucas Emanuel Rodrigues

Mentor(s): Garam Kim; Paul Kyu-Hwan Park; Eduardo Barocio Vaca

1274

Analyzing and Comparing Tibial and Femoral Bone Loss Patterns Following ACL Rupture

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Aishwarya Kunigal

Mentor(s): Deva Chan; Ryan Michael Meister

1275

The Relationship Between State-Level Tobacco Laws and Prevalences in the US: A Mediation Analysis

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Yen-hsi Lai

Mentor(s): Omobukola Otoise Usidame

1276

Evaluation of Inhibition Concentration, Solubility, and Metabolic Stability Data for Covalent Antimalarial Analogs

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Zane Anthony Lark

Mentor(s): Daniel P Flaherty

1277

Metal-Insulator-Metal Capacitor SPC - MIM3

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Gangsan Lee; Jozue Kim; Brian Martin Dodd; Ella Gores; Haneul (Sky) Kim; Sang Soo Ha

Mentor(s): Zhihong Chen

1278

Leveraging ChatGPT for Qualitative Data Analysis: A Case Study on Data Management Practices among Computer Vision Scholars

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Zonghan Lei

Mentor(s): Wei Zakharov

1279

Reliability for High-Temperature Solders Alloys with Microalloying

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Colton Pierce Lennen

Mentor(s): Lijia Xie; John E Blendell

1280

Mobile App Loyalty Program - A Case Study of Greyhouse Coffee

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kylie Michelle Levine; Skylar Marie Heckman; Olivia Kylie Troy; Varsha Raj

Mentor(s): Stephen R Leitch

1281

Analyzing Research Experience for Undergraduates

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Emily Ran Li

Mentor(s): Lisa B Bosman

1282

The Role of AKT and Skeletal Muscle in The Maintenance Of Neuromuscular Junction Plasticity

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Nathan Roger Lin; Annabella Mei Lau

Mentor(s): Natasha Jaiswal

1283

Large language model (LLM) for surgical training and the evaluations of LLM performance

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Che Liu; Aqib Muhammad Abdullah

Mentor(s): Denny Yu; Peiran Liu

1284

Exploring Natural Enemies of Coffee Leaf Rust

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Lindsey Nicole Lorenz
Mentor(s): Terry Jarianna Torres Cruz; Mary Aime

1285

Using IoT and Edge Computing to Ensure Safety in the Bechtel Innovation Center

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Jason Dumaul Lyst; Namit Shailesh Joshi; Jayaditya Borah; Abhiraj Singh Jaswal

Mentor(s): Jaeeun Kim; Matthew A Swabey

1286

Utilizing the Modified Gaussian Model to analyze the abundance and locations of pyroxenes on the lunar surface

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kamden Elliott Maddox; Matthew Robert Scheer

Mentor(s): Kris Laferriere

1287

Power Integrity Analysis for Post-Layout VLSI Design

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Leo Pearson Malachowski; Pei-Chi Liu

Mentor(s): Timothy Francis Hein; Ajith Kumar Raja; Mark Johnson

1288

Additive Manufacturing of 3D-Printed mBTT Shunt Phantoms for Hemodynamic Analysis of Shunt Parameters

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kara Rochelle McCrindle; Jennifer Heather Quercioli

Mentor(s): Brett A Meyers; Pavlos Vlachos

1289

CRC Accelerator for the AFTx07 System on Chip

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Aidan Michael McDonough; Daeun Kim; Eshan Mathur; Puthimet Kitjaruwankul

Mentor(s): Sooraj Chetput Venkataraghavan; Mark Johnson

1290

Predicting Bracket Outcomes: Using Predictive Analytics to Understand how Customer School Affinity Effects Decision Making Bias

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): William V. Mehra; Thomas Daniel Holland; Nathan Andrew Summers; Ethan Arthur Haeberle; Mahek Gupta

Mentor(s): Davi Cordeiro Moreira

1291

The Effect of Solar Radiation Pressure and Solar Activity Cycles on the Orbital Precession of Satellites

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Krish Samir Mehta; Evan Clark Paull; Conner M Winchester; Sloan Bennett McDonald; Apoorva Bahl

Mentor(s): Kenshiro Oguri; Paulo Ramirez; Travis James Hastreiter

1292

Enhancing ECElabs.io: Porting the Logic Gate Diagram Page to Vue for Improved Usability and FPGA Integration

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Heran Leonardo Mei

Mentor(s): Noah Mitchell Rediker; Junfei Li

1293

Carbon fiber reinforced composite beam designing and testing for SAMPE bridge contest

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Stan Melkumian

Mentor(s): Garam Kim

1294

Hypersonic Vehicle Design Analysis Using CBAero: System Interactions and Design of Experiments

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Abigail Sarah Mizzi

Mentor(s): Daniel A Delaurentis; Waterloo Tsutsui; Derek George Carpenter

1295

Water-table response to rainfall in the alluvial aquifer of the Funeral Formation in Death Valley National Park, CA.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Leah Nicole Montgomery

Mentor(s): Marty D Frisbee

1296

The Role of Air Cargo in Global E-Commerce

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kamanda K Mosongo

Mentor(s): Caroline Kathure Marete

1297

The Development of a Thermostat Environmental Emulator With humidification and Dehumidification Capabilities.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Seyed Kiarash Mossalaei; Gregory O'Hanian; Lexing Xu; Zaki Akhter Husain; Conner Walter MacDonald

Mentor(s): James Braun; Do Hyeon Kim; Jie Cai; William Travis Horton

1298

African rust fungi (Basidiomycota, Pucciniales) in the Purdue University Arthur Fungarium include an

unrecognized resource for the study of Ugandan plant pathology.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Caitlyn G Mount; Morgan Marie Klein

Mentor(s): David Rabern Simmons

1299

Developing an SH-SY5Y model to observe mitochondrial respiratory changes for toxicological studies

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Joliene Ruth Munson

Mentor(s): Ribhav Mishra; Aaron B Bowman

1300

FPGA Area Optimization

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Thomas Munson; Kyle Zhen-Han Wang; Jake Robert Zegger; Daniel EnYi Yang

Mentor(s): Timothy Francis Hein

1301

An Analysis of a Hall Effect Thruster through the Undergraduate Lens

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Rowan Hewitt Murphy; Robert Maxwell Neitzke

Mentor(s): Alexey Shashurin

1302

Predicting March Madness Bracket: The Influence of School Affinity

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Viet Vu Hoang Ngo; Rachel Kalyn Spear; Anishka Pateriya; Marcus Victor Page; Sana M Khambati

Mentor(s): Davi Cordeiro Moreira

1303

The Mother of all Bones: A Case Study of a Calcium-Rich Transient

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Owen T Odney

Mentor(s): Abigail Polin

1304

Traffic Light Detection for Autonomous Vehicles

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Yubeen Oh; Rui Meng; Jai Balaji Viswanath; Zian Pan

Mentor(s): Fengqing Zhu; Soudabeh Taghian Dinani; Carla Zoltowski; Edward J Delp

1305

Predicting Fan Engagement: A Similarity Test Enhancing Future Bracketology

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Lynden Tate Oliver

Mentor(s): Davi Cordeiro Moreira

1306

KiharaLab EMSuite Server: Advanced Tools for Cryo-EM Structure Modeling and Validation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Joon Hong Park

Mentor(s): Daisuke Kihara

1307

Reinforcement Learning-Driven Real-Time Pricing for Sustainable EV Charging

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Jihyo Park; Zephan Jacob Thomas; Shounak Mukherjee; Thilak Babu

Mentor(s): Sivaranjani Seetharaman

1308

Machine Learning Driven Analysis of Duchenne Muscular Dystrophy Cardiac MRI Data

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Katherine Xiaoxing Pesetski

Mentor(s): Guang Lin; Madison Ann Sullivan

1309

Perspectives towards DMPA-SC (Depo) self-administration among Black women

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Alana Powell

Mentor(s): Kathryn Jean LaRoche; Randolph Duane Hubach

1310

Hyaluronic Acid Hydrogels for Biomedical Applications

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Shreya Prakash

Mentor(s): Taimoor Hasan Qazi

1311

Simultaneous Use of a Lab-Realistic Virtual Teaching Experiment Alongside an In-Person Experiment Improves Students' Academic Performance and Enjoyment of the Lab Experience.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Olivia Marie Raab

Mentor(s): Jonathan C Rienstra-Kiracofe

1312

Design and Analysis of Flapping-Wing Unmanned Aerial Vehicle (FWAV) Modular Wing Testbed

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Milan Edward Rahmani

Mentor(s): Abhijnan Dikshit; Pavankumar Channabasa Koratikere; Leifur Thor Leifsson

1313

Fantasy Disclosures in Bad Parent and Peer Groomer Chats

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Reeya Ramasamy
Mentor(s): Tatiana Ringenberg; Kathryn Seigfried-Spellar

1314

Raspberry Pi Robotic Arm Image Recognition

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Brian Ross Ramos; Brandon Maxwell Yee
Mentor(s): Steven R Dunlop; Stewart F Bauserman

1315

Benchmarking and Analyzing Machine Learning Workloads for Hardware Optimization

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Soham Rattan
Mentor(s): Timothy Francis Hein

1316

SoCET HAPS

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Alexander Repikov
Mentor(s): Timothy Francis Hein; Mark Johnson

1317

Exploring the Disaggregation of Serum Amyloid A1 Fibrils Isolated from Animals

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Hannah Irma Reyes Charles
Mentor(s): Jessica Sonia Fortin

1318

Tobacco Perceptions and Abstinence Intentions Among Caribbean Adolescents: Through the Lens of the Health Belief Model

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ava Grace Reynolds
Mentor(s): Shandey Derisa Malcolm

1319

Customizing Grid Collimators with 3D printing for Optimized Spatially Fractionated Radiotherapy

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Justina Joy Riffell; Anna Polkowski
Mentor(s): Matthew Louis Scarpelli

1320

Fast and Accurate Estimates: Leveraging Digital Technologies for Construction Estimating

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Samuel Carter Rolley
Mentor(s): Linda E Haynes

1321

Customer Segmentation and Market Expansion Strategies: A Case Study for Flora Candle Co.

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Jessica Ruiz Cortez; Autumn Marie Scott; Savannah K Scheele; Nicholas Bradley Brown

Mentor(s): Stephen R Leitch

1322

The Hardships of the “Brightest”: An Investigation Into the Unhealthy Relationship Between High-Ability Students and Academics

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Emma Krista JiaFu Runyan

Mentor(s): Linda E Haynes; Daniel A Guberman

1323

Analysis of Temperature Sensitive Mutants

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Olivia Nicole Safranek; Ruoqin Rachel Yang

Mentor(s): Laszlo Csonka; Nicholas Noinaj

1324

Post-Synthetic Phosphorus Modification for Enhanced Hydrothermal Stability of Acid MFI Zeolites

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Aakash Sanjay

Mentor(s): Bereket Tassew Bekele

1325

Human-Centered Policy Frameworks for Autonomous Agent Technologies

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ramani Satishkumar

Mentor(s): Anastasia Kouvaras Ostrowski; Cynthia Breazeal

1326

A systematic study on the effect of different carbon precursors for the synthesis of MAX and two-dimensional MXenes

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Christian Paul Hardy Scott

Mentor(s): Babak Anasori; Anupma Thakur; Nithin Chandran Balachandran Sajitha

1327

Adaptive Accompaniment for Musical Compositions

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ranav Sethi; Peter Edvardsson; Seung Hyun Choi; Ashwin Kazuki Thampi; Nathan Zhou; Si Ci Chou; Sean Xiaoyang Su

Mentor(s): Yeon Ji Yun; Yung-Hsiang Lu

1328

fRaud: An R-Shiny Application To Identify Financial Transaction Fraud

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Himanshu Niraj Sethia; Marissa Shuluo Urbanek; Bao Chau Chau Nguyen; Allison Spahn
Mentor(s): Matthew Lanham

1329

The Impact of DEI Abolition on University Cultural Centers and International Student Inclusion

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Amogh Meenakshi Shadangi; Manas Umangkumar Doshi; Yu-Chun Chou; Jui-Tung Lee

Mentor(s): Haiyan Li

1330

Topology Distorted Amorphous Metal-Organic Framework For PFAS Removal in Water

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Netra Ashish Shah

Mentor(s): Sathish Rajendran; David Warsinger

1331

Molecular CSI: An Integrated Workflow Using AI-Driven Structural Modeling and Domain Microanalysis for Hypothetical Protein Annotation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ranen Kaiser Shakir; Eric Tate Vasser; Lauren Elizabeth Bhat; Isaac Brennan Schantz

Mentor(s): Kari L Clase; Julia Ann Simler

1332

Simulating a Quantum Walk as Hawking Radiation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Likith Reddy Singam; Jack Harrison Reynolds; Lucas Michael Rulo; Yana Manishkumar Shah; Hermes Heng-yu Fu; Millan Shah Kumar; Tyler Mitchell

Mentor(s): Robin Carpenter; Danny Milisavljevic; Andreas Jung

1333

Scripting generation of System on Chip

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Neal Sai Singh; Trent Michael Seaman; Robert Yida Zhang; Daniel Wang

Mentor(s): Cole Aaron Nelson

1334

GPU Architectural Optimisations for Differentially Private Stochastic Gradient Descent

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Rudraneel Sinha; Danielle C Ejiogu

Mentor(s): Kazem Taram

1335

Free Speech Across Borders? Analysis of International Legal Documents

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Charlize Alexis Sinko
Mentor(s): Swati Srivastava; Alexander Thomas Wilhelm

1336

Synthesis, structural and protein binding analysis of differently substituted Ru(II)-hydrazine complexes

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Milica Slavkovic

Mentor(s): Michael Humes Borkowski

1337

Optimizing Pre-Trained Model Selection for Resource-Constrained Applications

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Lawrence Folsom Smith; Hyeonwoo Heo; Christopher Xu; Minh Binh Tran

Mentor(s): James C Davis

1338

Resource Allocation Challenges In Athletic Training Programs

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Kinsley Brianne Smoot

Mentor(s): Catherine Jean Shukle

1339

Decoding the Future: The Impact of Generative AI on Coding Education and the Programming Job Market

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Elliott Jameson Soderberg

Mentor(s): Wooyong Jo

1340

How NPCs Navigate Crowded Spaces in Different Weather Conditions

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Justin Song; Sabrina Louise Gray; Reed Ellis Baker

Mentor(s): David Michael Barbarash

1341

Quantifying hydrogeological processes in the stratified-drift aquifer system of the Iroquois Till Plain using heat, geochemistry, and stable isotopes as tracers in the Ross Biological Reserve, Tippeca

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Canada Connor Speier; timothy Hartzler; Thomas Barstow Lambert

Mentor(s): Marty D Frisbee; Srilani Wickramasinghe Wickramasi Mudiyansele

1342

Organoid-based study of free fatty acid-induced lipid accumulation and growth dynamics in MAFLD

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Nora Mariam Sukkar

Mentor(s): Sunghee Park

1343

Efficient and Cost-Effective Enzyme Deposition onto Tissues for Mass Spectrometry Imaging using a Mini-Humidifier

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Erik Robert Sveen

Mentor(s): Alyssa Marie Moore; Miranda Renee Weigand; Julia Laskin

1344

HPV Vaccine Recommendations: Influencing Change Through Information Provision at No-Cost Vaccine Clinics

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Emma Swanson

Mentor(s): Shandey Derisa Malcolm; Samantha L. Ky; Monica Kasting

1345

The Relationship Between Social Support and Perceived Stress Among Breastfeeding Mothers in the United States: A Cross-Sectional Study

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Tricia Isabel Sy

Mentor(s): Azza H Ahmed

1346

Supply Chain Optimization Using Quantum and Hybrid Machine Learning

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Myron Milad Tadros

Mentor(s): Andy Jung

1347

Deep Learning for Asset Mispricing in High-Frequency Trading: A Fat-Tailed Approach

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Sarthak Tandon

Mentor(s): Kiseop Lee

1348

Recycled Plastic Tree Tube Project

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Christopher Dawkin Tanjutco; Jesse Basham; Spencer Russell Fiddler; Adan Rosales; William Emilio Perez; Jackson Thomas St Myer

Mentor(s): Devon Julia Pessler; Paul B McPherson

1349

Participatory Design of Autonomous Agents' Role and Personality in the Workplace

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Mikaela Sandra Thompson

Mentor(s): Anastasia Kouvaras Ostrowski; Cynthia Breazeal

1350

Cosmic Clutter

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Keely Shea Vanhorenbeck

Mentor(s): Carla B Rosell

1351

C-To-Rust: Standardized Dataset Creation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Gaurav Vermani; Ryan Alexander Kubinski; Tzu Chieh Yi

Mentor(s): Aravind Machiry; Shashank Sharma; Ayushi Sharma

1352

The Computational Implications of Lambda Calculus

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Vedant Vrattikoppa

Mentor(s): Linda E Haynes

1353

Consumer Decision-Making and Market Expansion Strategies: A Fowler Theater Business Case Study

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Paul Christian Walter; Elijah Lewis Claeys; Noah Michael Clayman; Trent A Osborn; Tyler Ryan Green

Mentor(s): Stephen R Leitch

1354

AI Tool Selection Among University Students: Preferences and Influencing Factors

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Chandhopama Thidas Bandara Wanasinghe; Zhonghang Du

Mentor(s): Haiyan Li

1355

Utilization of Various Nanofillers for Increasing Membrane-Based Dehumidification Efficiency

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Lily Avery Waterman

Mentor(s): Md Ashiqur Rahman; David Warsinger

1356

Phonological Memory Profiles of Children with Speech and Language Disorders

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Bailey Marie Whitlock; Taya Christine George

Mentor(s): Francoise Brosseau-Lapre

1357

Clean and Efficient Hybrid Propulsion System for Drones

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Thomas B Wooldridge

Mentor(s): Holman Lau; Li Qiao

1358

Optimized Air-Entrained Structures in Underwater Noise Mitigation for Offshore Wind Energy

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Shaocheng Wu

Mentor(s): Junfei Li

1359

Predicting Failures in Manufacturing Machinery Using AI-Based Models: Case Study of Air Compressor Health Monitoring

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Andrew Yuchao Wu

Mentor(s): Eunseob Kim; Jaeeun Kim; Ali Shakouri; Martin Byung-Guk Jun

1360

Design and Analysis of Flapping-Wing Unmanned Aerial Vehicle (FWAV) Modular Wing Testbed

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Sota Yanagisawa

Mentor(s): Abhijnan Dikshit; Pavankumar Channabasa Koratikere; Leifur Thor Leifsson

1361

Obtaining VGA Video Output via AFTx07 FPGA Emulation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Eileen Yoon; Seongbin Lee

Mentor(s): Cole Aaron Nelson

1362

Communication's Role in Facilitating University Student Access to Mental Health Resources: How Communication Can Help Save Lives

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ashley Young

Mentor(s): Melissa Kay DeFrench

1363

Smart CNC Machine Tool Monitoring using Industrial IoT and Artificial Intelligence: MTConnect Data Integration and Forecasting Conductivity for Predictive Maintenance

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Eunjae Yu; Chen Jyh Wong

Mentor(s): Eunseob Kim; Ali Shakouri; Martin Byung-Guk Jun

1364

Understanding Student Experiences in REU Programs at a Large Midwestern R1 University

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Bayan Yunis

Mentor(s): Lisa B Bosman

1365

Understanding Engagement and Ministry Improvement in a Local Church Community

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Avery Marie Ragon; Neng Bi Zhang; Isabel Opal Davis; Robert Pedro Chambers; Andee Michelle Elenbaum

Mentor(s): Stephen R Leitch

1366

Enhancing Tumor Cell Therapy: Development of Bispecific Small Molecule Ligands Targeting Tumor Cells and Cancer-Associated Fibroblasts

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Nathan Enlong Zhang

Mentor(s): Sudarsan Reddy Kasireddy; Philip S Low

1367

Purdue Aerial Robotics Team - Competition Software

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ryan H.C. Zhang; Dong Wang; Kanishk Anil Israni; Zhitian Wang; Tarik Levent Guler; Rohan Steven Quarve; Suhani Rana

Mentor(s): Niall Patrick Moloney

1368

Sustainable Concrete Utilizing Supplementary Cementitious Materials

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Shelby Allen; Thomas Vellenga

Mentor(s): Andrew Banko

1369

Autonomous Particle-Filter Path Generation

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Michael Berlingieri

Mentor(s): Josiah Steckenrider

1370

CGM Data: Distilling and Interpreting Glycemic Trajectories

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Ethan Collins

Mentor(s): Andrew Banko

1371

Fresh Whole Blood Transfusion in Austere Environments

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Drew Homan

Mentor(s): Emine Foust

1372

Operational Modal Analysis of the Bear Mountain Bridge

Presentation Time: Session 2: 10:30-11:30am

Presenting author(s): Gautam Namjoshi; Philip Williams; Ethan Espinosa

Mentor(s): Thomas Matarazzo

THIRD POSTER SESSION | 12:00PM-1:00PM

1400

Financial Conspiracy Theories and Their Influence on Social Media

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Phoebe Isadora Abbruzzese

Mentor(s): Courtney Allen Falk

1401

Development of a Benchmarking Tool Utilizing Computer Vision for Generative Models

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Rishit Agrawal; Agrim Sharma; Bingyi Liu

Mentor(s): Yung-Hsiang Lu

1402

MINERAL DIVERSITY AND IMPACT MELTS IN CRATER CENTRAL PEAKS ON MARS

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Chandler Albright

Mentor(s): Briony H Horgan

1403

Predicting Consumer Purchasing Trends: A Comparative Analysis of Walmart and Target Customers in West Lafayette

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alexander Chase Alfele; Lauryn J Crumbley; Annika Anders Nelson; Brendan Lawrence Ludwig

Mentor(s): Davi Cordeiro Moreira

1404

Analyzing Trends in Post-Pandemic Purdue Computer Science Courses Over Time

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Colette Gabriella Bacidore; Anika Ghosh Maji; Shamita Yedlapalli; Nandini Sachdeva; Isabela Ureche

Mentor(s): Tiantian Qin

1405

META Horizon Virtual Reality

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Marcelo Ignacio Balsamo; Benjamin Matthew Shatkowski; Jaden Luke Polizzi; Logan Yu; David Michael Brethen-Thompson
Mentor(s): Steven R Dunlop

1406

SoCET: PCB STARS Chiplet

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aniketh Bhaskar Bandi; Maribel Garcia Vasquez

Mentor(s): Matthew A Swabey

1407

Development and Testing of a Footstep Planner Simulation Platform for Robust Quadrupedal Locomotion on Dynamic Surfaces

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Annalise Marie Baniecki

Mentor(s): Magnus-Tryggvi Adejogun Kosoko-Thoroddsen; Yan Gu

1408

Autonomous Docking Mechanism and Deployment System for Agricultural Robots

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alexa Katherine Barron

Mentor(s): David J Cappelleri

1409

Sustainability Challenges of Recycled Concrete Aggregate: The Hidden Role of Target Strength in Environmental Impact

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Amareah Elena Bead

Mentor(s): Rui Bai; Marina Garcia Lopez-Arias; Maria mirian Velay Lizancos

1410

PFAS biotransformation through composting of contaminated animal carcass

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ethan Robert Behrend

Mentor(s): Youn jeong Choi; Linda S Lee

1411

Evaluating The United States' Vaccines

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Srishti Bhatnagar

Mentor(s): Catherine Jean Shukle

1412

Optimal Fleet Strategy for Consistent Efficiency through Crisis: COVID-19 Case

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Layne Daniel Blocher; Serim No Cheon

Mentor(s): Fecri Karanki

1413

Examining the Role of Teachers' Language Modeling in Prekindergarten Classrooms

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Camila Bonta

Mentor(s): Jenn Finders

1414

Bias Confrontation & It's Relationship with Political Ideology

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Badreddine Bouzeraa

Mentor(s): Margo J Monteith; Madison Paige Vigdor

1415

Forever-Flying Drones: Autonomous Ocean-Based Refueling Stations for Hydrogen-Powered Drones

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ishaan Breinig

Mentor(s): Li Qiao; Holman Lau

1416

Exploring Gap Depth in Protoplanetary Disks: The Effects of Planet Mass, Orbital Separation, Surface Density, and Gap Merging in Multi-Planet Systems

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aydian Brown

Mentor(s): Paul Cole Duffell

1417

How Student Journalists Perceive and React to Information Challenges in the Field of Journalism

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Caitlyn Yuchong Cai; Skyler Rose Mofle; Shree Krishna Tulasi Bavana

Mentor(s): Rachel Fundator; Clarence Maybee; Margaret Elizabeth Collins

1418

Designing Standard Cell Library using Open-Source Software

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Enrique Camacho; Haruna Kawai; Chase John Grimm

Mentor(s): Boyuan Chen; Andrew Lee Schlabach; Mark Johnson; Sergey Zakharov

1419

Dextran encapsulation In Modified Coiled-Coil Peptide Nanotubes

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Wyatt Tristan Carter

Mentor(s): Jean A Chmielewski; Anna Pavlishchuk

1420

Synthetic Biology Laboratory: Construction of a Methylsalicylate Biosensor

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Yamna Belen Chacon Perello; Aidan Thomas Dibble; Alexis Mae Carroll; Ann

Marie Uhlmansiek; Emily Joy Reeves; Gretchen K Minich; Race Ethan Medema; Timothy Michael Raplee
Mentor(s): Bruce M Applegate

1421

TimeScale Creator Online: Web Tool for Visualization of Earth

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Kevin Ming Chang; Aditya Krishnan Sivathanu; Leyton Drew Bostre; Samyukta Balaji; Michael Robert Knaack; Jiali Shi; Joshua Yu-Yaw Ho; Ellis Reuben Selznick

Mentor(s): James G Ogg; Aaron C Ault

1422

SLM Research for Computer Vision

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alan Chi

Mentor(s): Qi Guo

1423

Evaluating the Efficacy of Protein Arginine Methyltransferase (PRMT5) Inhibitor in Castration-Resistant Prostate Cancer (CRPC)

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Yoonjung Choi

Mentor(s): Hye Seung Nam; Rong Huang

1424

Powder Rheometer Model

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Seong Bin Choi

Mentor(s): Carl R Wassgren

1425

Purdue Aerial Robotics Team - Competition Mechanisms

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Easton Ludeman Clark; Aidan P Pender; Yusif Shukurlu

Mentor(s): Niall Patrick Moloney

1426

Optimization of Composite Patch Repairs for Steel Bridge Girders

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Doren M Cohen; Chang Su

Mentor(s): Garam Kim

1427

Investigation of a mechano-bioreactor on chemical and mechanical properties of a three-dimensional articular cartilage model

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aaron Coppeta
Mentor(s): Deva Chan; Hong-Anh Alexandria Nguyen

1428

Neanderthal d15N Values are Not Exceptionally High for Hominins: A Holocene Comparison

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ellie Lane Coppola

Mentor(s): Melanie M. Beasley

1429

Assessment of Bone Mechanical Properties via UTE-MRI Based on Measure of Bound Water

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Braden James Cordrey; Grant Andrew Belush

Mentor(s): Peter Asiwaju Olayooye; Rachel Kathleen Surowiec

1430

Wildfire Impact on Air Quality: A Case Study of Isle Royale, Michigan in 2023

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Kerstin Ariel Cox

Mentor(s): Gouri Gouri Prabhakar

1431

Process Intensification for Synthesis and Purification of Oncology Drugs

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Attila Tamas Csathy

Mentor(s): Zoltan Nagy; Ilke Akturk; Hemalatha Kilari

1432

Measuring the Ligand Exchange Kinetics of Metal Chalcogenide Clusters

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ronald Anton Cutler

Mentor(s): Julia Laskin; Bethany Ana Phillips

1433

Optimization of an Origami Shaped Antenna Reflector to Maximize Uniform Coverage and Energy Containment For One-to-Many Communication

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jacob Daniel

Mentor(s): Ran Dai

1434

Impact of Medullary Bone on the Fracture Toughness of Egg Laying Hens' Tibias

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Joshua Armstrong Davis

Mentor(s): Thomas H Siegmund

1435

Reinforced Learning Models for Modern Production

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Thiago Gabriel Di Si

Mentor(s): Yu She; Jaeeun Kim

1436

The Transgender Avatar: Self-Perception in Video Game Character Creation

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Emily Hannah Duong

Mentor(s): Carla B Rosell

1437

Do parents

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Divya Tarika Durai; Maggie Brinn Miller

Mentor(s): Siqi Zhang; Suzanne Christine Varnell; Salvador Roberto Vazquez; Sarah Eason

1438

Wearable Device Design for Autonomic Dysreflexia Detection Using Skin Sympathetic Nerve Activity Collection

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Reed Stevens Elphingstone

Mentor(s): Molly Noelle Dye

1439

The Effects of Induced Hypothyroidism on Intestinal Morphology in Nursery Pigs

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Samantha Teal Fairchild

Mentor(s): Jonathan Pasternak; Isabel Turner

1440

Automated Skin Layer Segmentation in Histology Images: A Comparative Analysis of Deep Learning Methods

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Mikyla Farnell; Kelly Hsieh Lin; Somya Gupta

Mentor(s): Brett A Meyers; Reza Babakhani Galangashi; Pavlos Vlachos

1441

ChainVisor: analyzing the security posture of IoT device software

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Daniyal Fazal; Parth Doshi; Jayden Chun-Hin Chow; Geuntae Kim; Harmon Howse; Daniel Jonathon Proano

Mentor(s): Santiago Torres Arias

1442

Predicting NCAA Bracket Champions with Data-Driven Insights

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Maura K Flood; Mackenzie Elizabeth Arnish; Nicholas Patrick Zebell; Haley

Grace Henson; Olivia Francis Hojnicky

Mentor(s): Davi Cordeiro Moreira

1443

Beyond the Bracket: Data-Driven Predictions of March Madness Selection Patterns

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alyssa A Forester; Sophia Ling; Isabella Chiara Lagioia; Zainab Waheed; Aadi Agrawal

Mentor(s): Davi Cordeiro Moreira

1444

Wings in Motion: Geometric Patterns of Swarming and Non-swarming Mosquitoes

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Rachel Fortman

Mentor(s): Ximena Bernal; Richa Singh

1445

KanKan Theater Business Case Study

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Robert Louis Fruchey; William V. Mehra; Henry Jack Love; Simon Joseph Denny

Mentor(s): Stephen R Leitch

1446

Low Power Depth from Differential Defocus

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alan Fu; Thomas William Concannon; Emma Lynn Stump; Chewon Yu Park; Neal Sai Singh

Mentor(s): Qi Guo; Junjie Luo

1447

Exploration of IL-27 Gene Therapy in the Treatment of Acute Respiratory Distress Syndrome (ARDS)

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Viviana Galindo

Mentor(s): Marxa Figueiredo; Alexandre Matheus Baesso Cavalca; Grace E Mulia

1448

ExamBoost: A Data-Driven Approach to Improve Student Exam Outcomes

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Riley Clare Garrison; Sreeya Thirunagari; James Graeme Tolland; Lucas Hunter Spence; Destinee Walker

Mentor(s): Matthew Lanham

1449

"He's Like FBI But Not": Exploring Humor and Aggression in Vigilante Legitimacy

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Doetri Ghosh

Mentor(s): Tatiana Ringenberg

1450

An In-depth Look of Different Phase Locked Loop Topologies

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Thomas Allen Greer; Erik Kocinare; Chao Min Chung

Mentor(s): Archana Dharanipragada

1451

Design, Manufacturing and Testing of Thermoplastic Composite Rivets

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Arda Gunduz; Sean Angillo Mitchell

Mentor(s): Garam Kim

1452

Design and Optimization of a Fully Differential Gilbert Cell Mixer for 2.4 GHz Direct Conversion Wi-Fi RF Receivers

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Youssef Nagah Haider; Abdelrahman Osama Khalid

Mentor(s): Swapnil Bansal; Archana Dharanipragada

1453

Comparative Analysis of Bioinformatic Programs for Bacteriophage Protein Structure and Function Homology

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ash Hallissey; Joshua Edward Sheldon; Ekagrah Kumar; Sara Thomason

Mentor(s): Kari L Clase; Julia Ann Simler; Opeyemi Samuel Oduniyi; Marcelo Inaki I Guerrero Montalvan

1454

Homeowner Well-Being and Community Livability: A Comprehensive Analysis in Lafayette, Indiana

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Bridget Katherine Heindl; Leo Pearson Malachowski

Mentor(s): Jason Ware

1455

Antennal Complexity in Mosquitoes: Association between Structure and Multimodal Sensory Functions

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jonathan Christopher Henry

Mentor(s): Ximena Bernal; Richa Singh

1456

Influence of Cold Air Inflow on Stable Isotope Composition of Initial Precipitation

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Amber Grace Hitchins

Mentor(s): Lisa Welp

1457

Enhancing SCP Hotels' Brand Positioning Through Sustainability and Community Engagement

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Brooklyn Grace Holt; Camila Gumucio Granier; Carolyn Elizabeth Szilagyi; Justin Alexander Bolinder; Austin Edward Springer

Mentor(s): Stephen R Leitch

1458

The Correlation Between Lead Exposure and Preeclampsia in Pregnant Women

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Isabelle Patricia Hopf

Mentor(s): Linda E Haynes

1459

Artificial Intelligence in Dentistry: Utilizing Diagnostics Interpreted by AI to Enhance Patient Understanding of Oral Health in Rural Areas

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sabrina Nicole Hornung

Mentor(s): Richard D Johnson; Thomas J Rickert

1460

VIP EdTechDev: Developing an Accessible Physical Computing Course

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Cheyenne Mie Huggins; Samridhi Kakkar; Linda Ronglin Xu; lance Ma; Nicholas Gentry Viardo

Mentor(s): John H Cole; Jack Scarfo; Aakanksha Amol Shripal; Soudabeh Taghian Dinani

1461

Using neural networks to predict microstructure evolution in granular materials

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Prashant Iyer

Mentor(s): Abhinav Ramkumar; Marcial Gonzalez

1462

AutoIC - Integration of BIM for Bridge Modeling

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Tanay Jain; Inaki Garcia Barcena Garcia; Jennifer Yunning Lu

Mentor(s): Jiansong Zhang

1463

Pre-PCI Risk Stratification

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Saloni Jajoo

Mentor(s): Fiona Kolbinger; Muhammad ibtsaam Qadir

1464

Individual Tree Detection using deep learning models with UAV-Based images in Mixed Forests

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Yuexin Jiang

Mentor(s): Yunmei Huang; Songlin Fei

1465

Preference for Charging Station Venues – A Comparison between Electric Vehicle Users vs. Non-Electric Vehicle Users

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Christina Joslin

Mentor(s): Nadia Gkritza; Bruno cesar Krause moras

1466

Eye to Eye: Scaling Patterns and Ecological Functions in Mosquito Vision

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Grace Lynn Jurkovic

Mentor(s): Ximena Bernal; Richa Singh

1467

Wearable System for Tracking Stroke Rehabilitation Progress

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Taran Reddy Kamireddy; Nadia Bailen Boluda; Lara Nour Courgi; Elias Malak

Mentor(s): Ken Yoshida

1468

Engineering Leadership: A Systems Approach to Collaboration and Communication

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Saachi Katariya

Mentor(s): Aparajita Jaiswal

1469

Raceline Optimization in Autonomous Racing using Quantum Annealing

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Azain Khalid; Ritwik Suresh Jayaraman; Pranav Vijay Kumar; Khoi Xuan Mai; Jake Alan Patterson

Mentor(s): Andres Felipe Hoyos Moreno; Samuel Labi

1470

The History of Bovine Tuberculosis in the United States and its Modern Day Implications

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jolie Grace Klimczak

Mentor(s): Emma Maggart

1471

Exploring the Gap Moe: Analyzing Unknown Functions of Gaps in Bacteriophages AdaS and MellowYellow

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Lillian Grace Knight; Michael H Wang; Reina Cristine Perl; Sabina Anna Mazur; Madeline Marie Peterson

Mentor(s): Kari L Clase; Julia Ann Simler

1472

Purdue Aerial Robotics Team - Competition Optics and Avionics

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): William Andrew Kok; Abdulmalik Abiodun Busari

Mentor(s): Niall Patrick Moloney

1473

What Needs Do Parents and Youth Have That Can Be Fulfilled With an Afterschool Program?

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Zainub Aamir Kokan

Mentor(s): Temitope Folasade Adeoye Olenloa

1474

The Synthesis and Characterization of 1-Decyl-3-Methylimidazolium Ligated CsPbBr₃ Quantum Dots for Exciton Transport Analysis

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sarah Marie Kolp

Mentor(s): Nicholas Robert Favate

1475

Digitizing the Past: Using GIS to Integrate Analog and Digital Spatial Data for Bronze/Iron Age Hillforts in the Armenian Highlands

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Melanie A Kreutz

Mentor(s): Ian Lindsay

1476

Direct Conversion of Sulfide to Selenide Phase of Cu(In,Ga)(S,Se)₂ (CIGSSe) via Se Vaporization

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Julia Ku

Mentor(s): Juan Sebastian Alban Dominguez; Jhoan Andres Ruiz Velasquez; Rakesh Agrawal

1477

The Effects of Exercise on Mental Health

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Emily Marie Kuras

Mentor(s): Beth Elly Baumgartner

1478

ECE Labs - GPIO streaming

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Haejune Kwon

Mentor(s): Junfei Li

1479

The Benefits of Bilingualism in a Globalized World

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Zubin Lee

Mentor(s): Linda E Haynes

1480

Purdue Ivy Tech Chips Program Analysis Project

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Philip Hwanseo Lee

Mentor(s): Shauna Nicole Adams; Yash Ajay Garje; Kerrie Douglas

1481

Small Scale Manufacturing of Clay on Mars

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aelish Marie Ligon

Mentor(s): Stewart F Bauserman; Steven R Dunlop

1482

Shaping Future Leaders: Business Students' Views on Leadership

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ying-Wei Lin; Minsu Cho; Yuma Ariga; Stavros Tzortzatos Gorrichategui

Mentor(s): Haiyan Li

1483

Evaluating the Effectiveness and Limitations of Animal-Assisted Therapy for Children with Disabilities

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Andrew David Linerode

Mentor(s): Carla B Rosell

1484

A RISC-V Implementation of the Core-Local Interrupt Controller for the AFTx Series.

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Felix Liu

Mentor(s): Fnu Kumar Alabhya; Cole Aaron Nelson

1485

Data Transformation and Cleaning for Autonomous Vehicles: Ensuring Compatibility with AV-24 Platform and Enhanced Performance on Deep Neural Networks

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Austin S Lugo; Emily Song; Shivani Sinha; Shreya Shrikrushna Pulujkar

Mentor(s): Andres Felipe Hoyos Moreno

1486

Interfacing a Daughter Board for Caravel EFabless Chip

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Joseph Alexander Schelb; Han My Luu

Mentor(s): Vishnu Chaithanya Lagudu; Matthew A Swabey

1487

Code and Development of Radar Sensors for Environment Feedback

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jessica Frances Lyng

Mentor(s): Abolfazl Hashemi; Zijian He; Rongbo Hu

1488

Predicting NCAA March Madness Outcomes: Assessing School Affinity and Bracket Forecasting Accuracy

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aryaa Madan; Rayan Siddiqi; Pahal Vishalkumar Kapatel; Jacob Michael Zawacki

Mentor(s): Davi Cordeiro Moreira

1489

Perioperative Pressure Pain Threshold as a predictor of Acute and Chronic Postsurgical Pain Outcomes in Adolescents

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Hana Mohamed Mahmoud

Mentor(s): Vidya Chidambaran

1490

Predicting March Madness Bracket Accuracy: The Role of School Affinity in Final Round Forecasting

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Avi Manik; Anurag Koripalli; Ark Kedia; Brady Ivan Yoder; Somansh Hamen Shah

Mentor(s): Davi Cordeiro Moreira

1491

Using ABCD Data to Identify Cardiovascular Protective Factors Among Black Youth

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Charles W Mann; Blessing Adomale Lesi

Mentor(s): Paul A Robbins; Amy Milin Loviska; Kayla Kiara Fisher

1492

Secure Remote Control Raspberry Pi with SSH and XMRig

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Samuel Joshua McBroom; Jonathan S Carr

Mentor(s): Stewart F Bauserman; Steven R Dunlop

1493

The Impact of Colostrum versus Milk Replacer Feeding on Circulating Metabolites in Male and Female Neonatal Piglets

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Caeden Patrick Meade

Mentor(s): Theresa M Anderson; Linda Marie Beckett

1494

Expected Impact of Community-Based Education with People Experiencing Substance Use Disorder on Pharmacy Student Skill and Comfort Level with Patient Interaction

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Kylie Rose Miskovic

Mentor(s): Carol A Ott

1495

Patellar Tendon biomechanical properties and serum markers in adults with Type II Diabetes

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Lauren Mitevski

Mentor(s): Chad C Carroll; Eric Gutierrez

1496

Photocurable Gel Actuators with Engineered Microstructures for Enhanced Energy Density and Actuation

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Uday Mittal

Mentor(s): Alex Chortos; Alhammam Burhan A Niyazi

1497

Stabilizing anthocyanins through pectin interactions

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ashley Zaira Mohammed

Mentor(s): Lavanya Reddivari; Sarah Lee Eckrote

1498

Purdue Ivy Tech Chips Program Research Project

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sophia Moon

Mentor(s): Shauna Nicole Adams; Yash Ajay Garje

1499

Enhancing Bone Fragment Identification in Forensic Anthropology Using Machine Learning

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jacob Ray Morales; Sidh Jain; Alessandra Rice; Tuan Minh Pham; Puruo Wang

Mentor(s): Edward J Delp; Fengqing Zhu; Andrea Marie Tener; Carla Zoltowski

1500

Establishing temporal bone quality changes in progressive chronic kidney disease (CKD)

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ishita Mukadam

Mentor(s): Rachel Kathleen Surowiec

1501

Moon Clouds? Modeling an Ancient Lunar Atmosphere with Photochemical & Climate models

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Rowan Nag

Mentor(s): Alexandria Vincenza Johnson

1502

Ridership Prediction with external weather data

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Bao Chau Chau Nguyen; Kelly Ann Igo; Lejia Zhou; Anushka Sharma

Mentor(s): Xing Wang

1503

Deep Neural Network approach for distinguishing the Higgs signal from background noise

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Joshua David Oberholtzer; Sydney Metz; Sri Krishna Teja Mannava; Thea Lee Bielejec

Mentor(s): Heather Nicole Martin; Andy Jung

1504

Y-Branch Splitter Optimization using with Finite Difference Time Domain (FDTD) Solver

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Rohan Imhotep Ojha

Mentor(s): Vivek vasantrao Wankhade; Jason Dwight McKinney

1505

DFT and LEC for AFTx07+

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Tei Okamoto; Cameron Thomas Patt

Mentor(s): Mark Johnson; Matthew A Swabey; Timothy Francis Hein

1506

Distribution of Biosolid-Impacted Recreational Farm Ponds Contaminated with Per- and Polyfluoroalkyl Substances (PFAS) in Indiana

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Rachel Christine Quisil Ordiales; Sadie Grace-Lucero Keegan

Mentor(s): Andrew Charles Todd; Maria Soledad Sepulveda; Youn jeong Choi; Linda S Lee; Tyler D Hoskins

1507

Adhesive Trends of Zein-Tannic Acid for Biomedical Use

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Franko Vinko Orszag; Donovan Kole Bear Godman

Mentor(s): Gudrun Schmidt

1508

Investigating Embedded Sensing in Metamaterials for Thermal Management Applications

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sonia Panchal

Mentor(s): Amanda Elizabeth Stone; Davide Ziviani

1509

Retrofitting Legacy ICE Vehicles for Autonomous Operation: A Systematic Integration Approach

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Pratham Patil; Alexander Jonathan Collins; Jeet Brahmabhatt; Neal Noel Lobo; Bobby Gu; Jake Aron Brenner

Mentor(s): Shreya Ghosh

1510

Predicting Electric Vehicle Sales: A Model-Based Approach to Forecast Purchase Trends

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ricardo Andres Pena Rojas; Brandon James Rodarmel; Alec Michael Walter; Colin Lucas Wellington

Mentor(s): Davi Cordeiro Moreira

1511

Temporal Coding in Viscoelastic Multistable Bits

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Mariana Peres Duarte

Mentor(s): Jose R Rivas; Andres Arrieta Diaz

1512

Role of Histone Modifiers in Pathogenesis and Drug Resistance in *C.glabrata*

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Mateo Perroud

Mentor(s): Scott D Briggs

1513

Reaching Market Potential: A Garbanzo Case Study

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Grace Elizabeth Peter; Kaitlin Rose Otto; McKenna Rae Toltzman; Sydney Lynn Williams; Kiersten Serenity Fisher

Mentor(s): Stephen R Leitch

1514

Close Calls: Evaluating Auto Annotation Accuracy in GeneMarkS and Glimmer in Bacteriophage Genomes

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Mia Cynthia Pfeiffer; Lauren Marie Schinker; Erin E Chapmond; Kole Allen Luckett

Mentor(s): Kari L Clase; Julia Ann Simler

1515

Understanding sex and gender in past populations using new proteomics techniques

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): julia Phelan

Mentor(s): Michele Buzon

1516

Electrochemical Aptamer Sensor Fidelity in Complex Blood/ Serum Solutions

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sadie A Poirier

Mentor(s): Vanshika Gupta

1517

Optical Rebrightening of Supernovae through ZTF Forced Photometry data.

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Shawanwit Poomsa-ad; Vincent Cody Stavig; Abhiansh Parwal; Marygrace Michelle Fagan

Mentor(s): Danny Milisavljevic; Dylan Scott Caudill

1518

Cracking the Code: Unveiling REU Experiences Through Data Analysis

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jeeranun Poopanead

Mentor(s): Lisa B Bosman

1519

Real-Time Controllable Adaptive Numerically Controlled Machine Platform

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alexander Popescu

Mentor(s): Garam Kim; Eduardo Barocio Vaca

1520

Exploring the Correlation Between Joint Kinematics and Physical Loads in Industrial Lifting Tasks

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Rakshit Pradhan

Mentor(s): Haozhi Chen; Denny Yu

1521

Understanding colloidal stability of two-dimensional Ti₃C₂T_x MXene using UV-Vis-NIR Spectroscopy

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Janvi Ishana Prasad

Mentor(s): Babak Anasori; Anupma Thakur

1522

Further Study of Root Knot Nematode with Suppressive Soil Types

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sonia Amaris Propst-Zuverza

Mentor(s): Lei Zhang

1523

Purdue Ivy Tech Chips (PITCH) Program Analysis Abstract

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jeevika Rajesh Purkar

Mentor(s): Kerrie Douglas; Shauna Nicole Adams; Yash Ajay Garje

1524

The Future of Biodegradable Implants: Enhancing Healing and Reducing Surgical Complications

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Jeffrey Jesus Quintanilla

Mentor(s): Carla B Rosell

1525

Quantitative Analysis of Shape and Topological Changes in Enveloping Cells during zebrafish epiboly

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aakarsh Nagendra Rai

Mentor(s): Linlin Li; David M Umulis

1526

Impacts of a Potential TikTok Ban

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Varsha Raj

Mentor(s): Stephen R Leitch

1527

Utilizing Participatory Action Research to Publish The First Yusku Mayangna Dictionary

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Collin Thomas Reagin

Mentor(s): Alyssa Alexandria Nez

1528

Metrology-Assisted Machining for Additively Manufactured Fiber-Reinforced Composite Tooling

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Nathan Thomas Rice

Mentor(s): Garam Kim; Rishabh Pammi

1529

Understanding the Effects of Co-Solvents in Enhancing Efficiency and Stability of Zinc Metal Anodes

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Emily Lucille Richardson

Mentor(s): Jeffrey Edward Dick; James Hoang Nguyen

1530

Assessing Arsenic Contamination in Soil: A Secondary Analysis of Airport Site Data

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Katelyn Riddle

Mentor(s): Ellen M Wells; Jung Hyun Lee

1531

Rethinking Police Training to Prevent Deadly Force

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Max A Ringger

Mentor(s): Linda E Haynes

1532

A Comparative Analysis of Pure and Recycled Carbon Black on the Mechanical, Thermal, and Microstructural Properties of Mortars

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Akshay Makarand Risbud

Mentor(s): Maria mirian Velay Lizancos; Rui Bai; Aniya Edwards

1533

Impact Mechanics of Avian Collisions: Assessing Forces and Fracture Risk

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Kaley Roe

Mentor(s): Thomas H Siegmund

1534

Annealing Solutions for Large-Scale Nanophotonic Design Spaces.

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Vishruth Satuloori

Mentor(s): Veja Iyer; Yuheng Chen

1535

Mechanical Testing Standards for Tendon - Are they Equivalent?

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sarah Schloff

Mentor(s): Dianne Little; Paula A Sarmiento Huertas

1536

Additive Manufacturing with Hybrid Continuous and Discontinuous Fiber Systems

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Thomas Edgardo Schmitz

Mentor(s): Eduardo Barocio Vaca

1537

A Methodology for Detecting Helicobacter Hepaticus in an Inflammatory Bowel Disease Mouse Model Through Feces

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sydnie Alexandria Scozzaro

Mentor(s): Matthew Olson; Nicole L Anderson

1538

Real-Time Health Monitoring: A Wireless System for Triboelectric Sensor Data Acquisition and Analysis

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Adam Jair Selby

Mentor(s): Wenzhuo Wu; Pedro Henrique de Souza Barbosa

1539

The Statistics Behind Fantasy Basketball: A Deep Dive into Category Leagues

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Karthik Selvaraj

Mentor(s): Lisa Lynn Hayes

1540

FatFs Kernel for AFTx07+ Microcontroller

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Aiden Hughes Sexton; Tushar Singh; Hojun Choi; Dhruv Dipesh Shah

Mentor(s): Cole Aaron Nelson; Mark Johnson

1541

Optimizing Machining Parameters for Additively Manufactured Fiber-Reinforced thermoplastic Composites

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Andrew R Sheedy

Mentor(s): Garam Kim; Eduardo Barocio Vaca

1542

Balancing Authority and Authenticity

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Tyrone John Shields

Mentor(s): Linda E Haynes

1543

Automating the Discovery of Tidal Disruption Events

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Dean Patrick Shock; Tiancheng Zhang; Camden Michael French; Dominic J Harbin

Mentor(s): Ziwei Ding; Danny Milisavljevic

1544

New Bayesian Methods for Fluorescent Lifetime Imaging Microscopy

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ishaan Kartik Singh

Mentor(s): Jing Liu

1545

Gaseous Accretion onto Different Mass Eccentric Binaries

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Thomas Anthony Slamecka

Mentor(s): Paul Cole Duffell

1546

Acoustic Bioaerosol Removal in HVAC Systems

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sohum Singh Sodhi

Mentor(s): Sudharshan Anandan

1547

Evolutionary Psychology in Relation to Serial Homicide

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Kayleigh Camryn Stuckwisch

Mentor(s): Catherine Jean Shukle

1548

Smart Wearable Device Accuracy: An Analysis of Sleep Tracking and Geolocation Features

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Nandan Sudunagunta

Mentor(s): Nina Lavern Matulis

1549

Utilizing an FPGA as Off-Chip Memory

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Oscar Surendranath; Connor Matthew Lai

Mentor(s): Matthew A Swabey

1550

Performance of Plant-based Underwater Adhesives on Limestone Substrates

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Pim Rae Tee; Vaanathy Periyarselvan

Mentor(s): Gudrun Schmidt

1551

Chemogenetic Tools in Zebrafish: Visualizing and Manipulating Bioelectric Activity.

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Maitreyee Panini Telang

Mentor(s): Ziyu Dong; GuangJun Zhang

1552

Tomato pinworm (*Keiferia lycopersicella*) distribution and location analysis in Indiana High Tunnels

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Sydney Anne Territo

Mentor(s): Laura L Ingwell; Samantha Willden

1553

Leveraging LLMs for the prediction of Aphasia severity directly from Speech

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Emily Angel Tumacder

Mentor(s): Yan Cong

1554

Wearable Electrochemical Sensors for Proactive Personalized Health

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Surya Pratheek Turaga; Margaret H Prokopy; Maria Therese Kufahl; Vishakh Menon

Mentor(s): Wenzhuo Wu; Jing Jiang

1555

Spatial Prediction of Gaussian Processes with the Confluent Hypergeometric Difference Covariance Function

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Joseph Mitchell Van Valer

Mentor(s): Drew Yarger

1556

AWARE: A wearable self-powered smart pressure sensors for workplace injury prevention

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Dhruva Vedula; Mrigas Ajay Iyer

Mentor(s): Wenzhuo Wu; Pedro Henrique de Souza Barbosa

1557

Greyhouse Business Case Study: Increasing revenue with food sales

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Ishika Vellaboyina; Katelyn Marie Hansa; Kathleen Marie Soedel; Yeshua Hernandez

Mentor(s): Stephen R Leitch

1558

Purdue Aerial Robotics Team - R&D Airframe and Mechanisms

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Robert Henry Walch; Elijah Temesgen Ponds; Timber Michael Bionda; Ron Cheng Xuan Chay; Justin Sprangers

Mentor(s): Niall Patrick Moloney

1559

Physical Design Verification for a System on Chip

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Minghan Wang; Asavari Deshmukh; Yash Singh

Mentor(s): Timothy Francis Hein; Mark Johnson; Swapnil Bansal

1560

Differing Roles of Pediatric Physical Therapy in Children with Neurological Disorders

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Madeline Rose Wanninger

Mentor(s): Linda E Haynes

1561

Responses To Transposition In Carolina Chickadees (*Parus carolinensis*) Of Central Indiana

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Bruce Daniel Ward; Rachel Pinto

Mentor(s): Jeffrey R Lucas

1562

Otterbein Ecological Residential Improvement Plan

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Andrew Yang Waskin

Mentor(s): Aaron W Thompson

1563

Affordability of Prosthetic Devices

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Emily Wei

Mentor(s): Carla B Rosell

1564

Arbuscular Mycorrhizae Fungi (AMF) Infection in Sorghum

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Victoria Pearl White

Mentor(s): Cindy H Nakatsu

1565

Trafficking and signaling abnormalities of the EGFRvIII patient variant

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Samuel Alan Wieczorek

Mentor(s): Ruben C Aguilar; Sneha Subramanian

1566

The Fight for Gender Equity in Drug Trials

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Alexandra M Wildridge

Mentor(s): Linda E Haynes

1567

Memory Subsystem Implementation for Accelerated Matrix Processor

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): William Wong; Yue Yin; varun Vaidyanathan

Mentor(s): Anand Raghunathan; Sooraj Chetput Venkataraghavan

1568

A Comparative Narrative Review to Improve Tobacco Health Issues in Rural Indiana

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Mallory Caroline Young

Mentor(s): Omobukola Otoise Usidame

1569

Development and Testing of the QSPI on FPGA

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Cecilie Zhang; Renzhi Yongtian; Atharva Umesh Bhide

Mentor(s): Sooraj Chetput Venkataraghavan; Cole Aaron Nelson; Mark Johnson

1570

SoCET Synopsys Flow & Memory Compiler

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Robert Yida Zhang; Nathan Nanchuen Yu

Mentor(s): Timothy Francis Hein; Mark Johnson

1571

Losing Credit on Credit Cards?

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Hantao Zhang

Mentor(s): Carla B Rosell

1572

Solar Energy Map of Mars: Modeling PV Energy Yields on Mars

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): Kira Xinran Zhong

Mentor(s): Peter Bermel; Muhammad A Alam; Jabir Bin Jahangir

1573

How Students Interpret Variability between Categorical and Quantitative Scatter Plots

Presentation Time: Session 3: 12:00-1:00pm

Presenting author(s): David H Zis

Mentor(s): Lauren Stoczynski; Stephanie M Gardner

1578

Leveraging Game Mechanics for STEM Education: Enhancing Engineering Skills Through the Pac-Man Robotics Challenge

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Christian R Tomao

Mentor(s): Jacqueline Linnes

FOURTH POSTER SESSION | 1:30PM-2:30PM

1600

Elevated Oxidative Stress in the Anterior Cingulate Cortex of Welders Exposed to Manganese

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lissette Mariel Aguiar

Mentor(s): Ulrike Dydak; Jessica Ann George; Brian Matthew Bozyski; Gianna K Nossa; Cora Faye Mizimakoski; Chang Geun Lee; Jae Hong Park

1601

Advancing Jailbreak Strategies: A Hybrid Approach to Exploiting LLM Vulnerabilities and Bypassing Modern Defenses

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Mohamed Alaa Moham Ahmed; Mohamed Sameh Abde Abdelmouty

Mentor(s): James C Davis

1602

Enhancing Urban Crime Analysis with Machine Learning and Python-Based Data Matching

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Mateus Ananias

Mentor(s): Jing Gao

1603

The Environmental and Economic Impacts of Dams on the Laurentian Great Lakes: A Prescriptive Analysis

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Peter James Arroyo

Mentor(s): Catherine Jean Shukle

1604

Measuring galvanic sweat response to indicate stress levels through a non-enzymatic skin-integrated biofuel cell sensor.

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Pragathi Arunkumar

Mentor(s): Nachiket Vatkar; Wenzhuo Wu

1605

Clicks to Conversions: Leveraging Social Media Engagement for Teenage Purchasing Behavior

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Pranshu Aryal; Mishka Parashar; Ria Trikha Singh; Tishia Talia Darmawan

Mentor(s): Davi Cordeiro Moreira

1606

Morphological changes associated with living in urban environments in invasive cane toads

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Diego Bailen Boluda

Mentor(s): Ximena Bernal; Andrew Joseph Mularo

1607

Fold and Behold: Predicting Protein Functions with Structural Models

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Isaac Robert Bailey; Owen Louis Hoerner; Saydie Ann Bannister Hannah; Katy

Brauer

Mentor(s): Kari L Clase; Opeyemi Samuel Oduniyi

1608

Visualize Music using Generative Models of Artificial Intelligence

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Utkarsh Bali; Tim Nadolsky; Liam Matthew Stonestreet; Henry Hengyi Tsay

Mentor(s): Yung-Hsiang Lu; Yeon Ji Yun

1609

Understanding The Rural Environmental Health Landscape: Exploring The Link Between Arsenic Exposure and Cancer Rates in Hartford City, Indiana

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Hannah Ashley Bard

Mentor(s): Ellen M Wells

1610

AI Use in the Marketing Industry

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): GeonHyo Beom

Mentor(s): Carla B Rosell

1611

Examining Institutional Bias in the U.S. Court of Claims: The Impact of Claimant Type on Case Outcomes

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lucy Anne Bolles

Mentor(s): logan Strother

1612

Resolving Gene Prediction Discrepancies: Comparing Glimmer and GeneMark in Bacteriophage Genome Annotation

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): AnnaBella Marie Brown; Delilah Ruth Flora; Pooja Sriram; Madelyn Clair Watson

Mentor(s): Kari L Clase; Julia Ann Simler

1613

Pedestrian Detection in EarthCam Images: Benchmarking Three Object Detection Methods

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ishaan Bangaraju Buddharaju; Aryan Kiran Kumar Chamarajanagar; Jack Edward Kenny; Ishita Shukla; Parth Nitin Ranade

Mentor(s): Fengqing Zhu; Soudabeh Taghian Dinani; Carla Zoltowski; Edward J Delp

1614

Searching For Precursor Lightcurve Data Using ZTF Forced Photometry

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lauren M Burch; Sam Brody Waymire; Jacob Nicholas Rytczak; Amit Valluri
Mentor(s): Danny Milisavljevic; Dylan Scott Caudill

1615

Characterization of Expanded Polypropylene Beads for Concrete

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Han Burgess

Mentor(s): Nicholas M Christ; Akul Seshadri

1616

Ozempic: Saving or Breaking Lives?

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Emily Sophia Burrow

Mentor(s): Carla B Rosell

1617

Better Bets: A Decision Support Tool for Sports Betting

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Albert Joseph Burton; Russell John Cohen; Ryan Andrew Katz; Ethan Brian Kobylinski

Mentor(s): Matthew Lanham

1618

Predicting March Madness Fan Brackets: Leveraging Data for Sponsorship Insights

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Albert Joseph Burton; Michael Lance Whitfield; Filippa Maria Rodriguez Pinzon; Chalen Alexander Jack; Varsha Raj

Mentor(s): Davi Cordeiro Moreira

1619

Understanding Consumer Preferences for Sustainability in Purchasing Decisions of Everyday Products

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Adrian Arnaldo Calderon; Joon Kang

Mentor(s): Gaurav Nanda

1620

Using PhiV10 NanoLuc to Detect E. coli O157:H7 in Pediatric Fecal Samples

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Katherine Grace Camden

Mentor(s): Bruce M Applegate; Michael F Oats

1621

Scalable Nanomanufacturing of Tellurene Nanowire Based Sensors for Pulse Monitoring

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Tobias Mikael Cars

Mentor(s): Tuhina Saxena

1622

Improving Pose Estimation for Antelopes

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Shaan Jitesh Chanchani; Claire Seol Kim; Joshua C Mansky; Zian Pan; Medhashree Parhy; Parth Thakre

Mentor(s): Amy R Reibman; Haoyu Chen

1623

Quantitative Comparison for Automatic Music Transcription

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ojas Chaturvedi; Kayshav Bhardwaj; Tanay Hemant Gondil; Ankur Senapati; Sanshray Kumar; Yuting Xiao; Mithun Mahesh

Mentor(s): Yung-Hsiang Lu; Yeon Ji Yun

1624

The Effects of Oil Contamination on Baby Products

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Christopher Felipe Chavarria

Mentor(s): Andrew Whelton; Cristiane Grossi Ferrarezzi; Paul Babu

1625

Peptides for Cell Penetration

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Marianna Chicas

Mentor(s): Jean A Chmielewski; Andrew Reich

1626

Integrating PyTorch with a custom accelerator

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Vihaan Reddy Chinthakindi

Mentor(s): Timothy Francis Hein; Mark Johnson

1627

Unveiling Food Waste Patterns at Purdue University

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Katherine Sophia Chiparus

Mentor(s): Abigail Engelberth; Louis Tay; Valentina Negri

1628

SCALE HI-AP Fabrication and Modeling of RRAM for 3D Monolithic Integration of an In-Memory Computing 1T1R OSFET Memory Cell

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Geetika Chitturi; Jou-Ting Lai

Mentor(s): Haitong Li

1629

VIP Birck AP/HI ALN team

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Chengyu Chiu; Isabel Alejandra Arias Zambrano; Jenna Marie Marquette; Varun Rajesh; Anusha Gambheera

Mentor(s): Peter Bermel; Saeed Mohammadi; Tiwei Wei

1630

The relationship between American Bullfrog tadpole mouthpart surface area and shedding rate

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Kendall Anne Claymon

Mentor(s): Catherine L Searle; Kurt Robert Lutz

1631

EngStarter: A Microelectronics Kit for STEM Education in Fragile Contexts

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Stephanie Close; Darren Soohm Hwang

Mentor(s): Dhinesh Balaji Radhakrishnan; Jennifer J DeBoer

1632

Topological Qubits: The Future of Quantum Computing

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Freya Jayden D'Souza

Mentor(s): Linda E Haynes

1633

Analysis of Ultramicroelectrode Stimulation on Animal Models

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Deniz Eksioğlu; Brinna M Porat

Mentor(s): Elizabeth Marie Olivo; Kevin John Otto

1634

The Next Era of Dentistry

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Cohl Cortland Erwin

Mentor(s): Linda E Haynes

1635

Polyformer

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ethan C Espinoza

Mentor(s): Steven R Dunlop; Stewart F Bauserman

1636

Classical Calculus-based Mechanical Physics with a Raspberry Pi

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Benedict Santino Espinoza

Mentor(s): Stewart F Bauserman; Steven R Dunlop

1637

Remember? Understand? Coding an Exam's Difficulty

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Piper Jade Feese; Natalie Corrine Marraccini; Ciara N Worthey

Mentor(s): Stephanie M Gardner; Michele L Holcombe

1638

Effects of Acute Ketamine Treatment on Learning Dependent Neural Plasticity in FXS Mice Models

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Mia Anne Fehlinger

Mentor(s): Alexander A Chubykin

1639

Overcoming Natural Disasters

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Noah Enrique Frances

Mentor(s): Carla B Rosell

1640

3D Printed Flexible Sensors

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ethan Scott Fuller; Theodore Kessid Wicker

Mentor(s): Diana Alejandra Narvaez; Brittany A Newell

1641

Actuaries and AI

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Scott William Fusco

Mentor(s): Linda E Haynes

1642

Extracting supernova explosion anisotropies in the power spectra of the type Ia supernova remnant SN 1006 at late times

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Roy Michael Galazka

Mentor(s): Abigail Polin

1643

The effects of omega-3-polyunsaturated fatty acid (PUFA) supplementation on asthma-prone racehorse performance

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Alyson Renae Galey

Mentor(s): Kathleen M Ivester; Laurent L Couetil

1644

Predictive Modeling of Liver Cancer Risk

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ethan Thomas Garcia; Jakub John Jasinski; Cooper J Keillor; Shenghua Wu; Meenakshi Radhakrishnan
Mentor(s): Davi Cordeiro Moreira

1645

Investigating the function of Cellulose Synthase Genes in Double Fertilization

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Alaina Rose Gartner

Mentor(s): Leonor Maria de Fatima Chagas Boavida

1646

Targeted recruitment of immune effector cells for the treatment of the influenza virus

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): John Oliver Richard Gase

Mentor(s): Kanduluru Ananda

1647

Feeding behavior and dry matter intake associated with feeding two concentrations of an Asparagopsis armata containing product in dairy cows

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Brianna Lynn Gast

Mentor(s): Jacquelyn P Boerman; Madison Lynn Simonds

1648

Assessing N-terminal methylation in the yeast stress response

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Kody Glithero; Audrey Elizabeth Ortman

Mentor(s): tony Hazbun

1649

Effect of shock-induced compressive and shear work on the reactivity of hotspots in polymer-bonded explosives

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Jacob Hayes Goehring

Mentor(s): Jalen Riley Macatangay; Alejandro H Strachan

1650

Contrasting the ratios of neural mechanisms to photoreceptors: Animals employ different color processing strategies

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Paraj Goyal

Mentor(s): Esteban Fernandez-Juricic; Carlay L. Teed

1651

Assessment of cardiac geometrical remodeling during chronic hypertension in murine pregnancy with 2D and 4D ultrasound

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Sarah Elizabeth Grev
Mentor(s): Elnaz Ghajar-Rahimi; Craig Goergen

1652

SCALE HI-AP Experimental Design & Facilitation of Thermal Grease Reliability and Performance in Large-Scale Computer Applications

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Nolan Parker Gronowski

Mentor(s): Ritwik Vijaykumar Kulkarni; Amy M Marconnet

1653

Biomedical Drone for Narcan Delivery

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Natasha Rajendrara Gundapaneni; Kanav Atre; Hanqin Zhai; Shreyansh Tehanguria

Mentor(s): James Michael Goppert

1654

Preference-based Reinforcement Learning with Multimodal Feedback from Foundation Models

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Arjun Sandeep Gupte

Mentor(s): Byung-Cheol Min; Ziqin Yuan; Ruiqi Wang

1655

Direct Ligand Exchange of Thin-Film Photovoltaics of CuInS₂ Using Molecular Precursors

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Kamran Hajibayli

Mentor(s): Juan Sebastian Alban Dominguez; Rakesh Agrawal

1656

Current Matters: Unraveling "Dead" Zinc Formation in AZMBs

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Michael Louis Harrigan

Mentor(s): James Hoang Nguyen; Jeffrey Edward Dick

1657

Cdc14 Targeted Antifungal Drug Discovery

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Nathan Michael Henderson

Mentor(s): Mark C Hall

1658

Projecting Plant Growth

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): John Lincoln Finn Hewson

Mentor(s): Muhammad A Alam; Peter Bermel

1659

How AI-Driven NPCs Simulate Human-like Social Interactions in Crowded Environments

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Rachel Wingyan Ho; Mihika Sharma; Niril Jestus; Chun-Yu She; Chengxuan Li

Mentor(s): David Michael Barbarash

1660

Patellar tendon biomechanical and morphological properties in young and older adult women

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Aidan Thomas Hopwood

Mentor(s): Chad C Carroll

1661

The Aggregation Tendencies of the Signal Peptide Regions of Prone and Not Prone to Aggregate Proteins

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Natalie Grace Horgan

Mentor(s): Jessica Sonia Fortin

1662

Improving Branch Prediction Accuracy and Minimizing Area for for a RISC-V based microcontroller

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Andy Hanjun Hu; Mary Francis; Alexandra J Tauriainen

Mentor(s): Cole Aaron Nelson

1663

Techniques for Secure Integration of Commercial Dies into Silicon Substrates for Heterogeneous Integration in Low Earth Orbit Applications

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Chun-Kang Huang; Pin-chen Su; Aadi Hsien-Lin Wu; Ying-Wei Lin; yoshiki takeuchi

Mentor(s): Peter Bermel; Saeed Mohammadi

1664

The Role of Contextual Memory in Speech Sensorimotor Adaptation

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Taylor Marcia Irvin

Mentor(s): Kwang Seob Kim

1665

Numerical Techniques for Efficient Full-Wave Modeling of Circuit Quantum Electrodynamical Devices

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Arnav Jadhav; Christian Scheckel; In Jun Baek; Keshav Shylesh; Charles Spencer Bowles; Tanvi Chukka; Jinhoo Yoon

Mentor(s): Thomas Edgar Roth; Samuel Theodore Elkin; Ghazi Khan

1666

Caffeine and Diphenhydramine for Evaluation of Anxiety and Sleep Patterns in Zebrafish Larvae

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ashilyn Joseph

Mentor(s): Jennifer Freeman; Wagner Antonio Tamagno

1667

Predicting Affective and Cognitive States Using Physiological Signals from skin-integrated wearable sensors

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): YoonJae Jun

Mentor(s): Nachiket Vatkar; Wenzhuo Wu

1668

Glycine-N-methyltransferase is not necessary for age-dependent Drosophila photoreceptor survival

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Danny Mazen Kanj

Mentor(s): Vikki Marie Weake; Seth Daniel Lammert

1669

Engaging the Mind and Body: A Meta-Analysis of Interactive Learning in Education

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Manas Kathuria

Mentor(s): Jason Wade Morphew

1670

A Psychometric Evaluation of the PHQ-8A Among Adolescents in Military Families

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Meha Raagani Kavoori

Mentor(s): Shelley MacDermid Wadsworth

1671

Metabolic Mechanisms Preventing Juglone Autotoxicity In Black Walnut

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Shoshana Sakara Keim

Mentor(s): Joshua R Widhalm

1672

The Application of AI Tools in Cancer Research

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Roshan Khan

Mentor(s): Linda E Haynes

1673

A Novel Testing Framework for Radiation Qualification of Commercial Microelectronics

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Sean Ross Klein

Mentor(s): Peter Bermel

1674

Quality Assurance of Macro Pixel Sub-Assemblies for the CMS Outer Tracker Upgrade

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Anna G. Klupshas

Mentor(s): Jan-Frederik Schulte; Ethan Michael Colbert

1675

The Efficacy of a Racemic Delta Opioid Agonist on Binge-Like Drinking in High Alcohol Preferring Mice

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Adrian Charlie Knoll

Mentor(s): Julia Chester; Soyol Enkh-Amgalan; Marieliz Dieppa-Rodriguez

1676

Exploring the Influence of Location-related Factors on the Job Choice of Engineering Students Interested in Microelectronics Careers

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Eileen Koh

Mentor(s): Emilee A Madsen; Kerrie Douglas

1677

Glycoprotein Analysis of Aged Mice Brain Proteome

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Rishabh Kottakota

Mentor(s): Uma K Aryal; Rodrigo Mohallem Ferreira; Punyatoya Panda

1678

Developing a Cost-Efficient Method to Quantify DNA using SYBR Gold

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Skyler Anna Kreunen

Mentor(s): Stephen R Lindemann; Miguel Angel Alvarez Gonzales

1679

CogniPilot

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Arthur Wesley Kron; Abdullah F A Y Alsadi; Maxwell Christophe Sprague; Saif Ali Jalal; Vikramaditya Baid

Mentor(s): James Michael Goppert

1680

Improving Agent Communication Large Language Model-Based Multi-Agent Systems

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Parv Kumar; Lavangi X Yadava; Zackary Pieter Homrich; Parth Kapila; Rohan S

Potta

Mentor(s): James C Davis

1681

Robotic wearable textile triboelectric sensor for augmented tactile and proprioceptive perception

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Pranav Kumarasubramanian

Mentor(s): Hettiarachchige D Perera; Wenzhuo Wu

1682

Fumarase and the DNA Replication Stress Response

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Maxine Katya Kushner

Mentor(s): Ann L Kirchmaier; Travis Jon Lubbers

1683

Quantitative Analysis of Shape and Topological Differences in EVL Cells of Zebrafish Embryos during Epiboly

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ian Kwan Yin Lam; Velan Arunmozhi

Mentor(s): Linlin Li

1684

Predicting March Madness Finalists: A Data-Driven Approach to Understanding School Affinity

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Drew Christophe Lawler; Omar Haytham Al Hussein; Benjamin James Wright; Kelly Ann Igo

Mentor(s): Davi Cordeiro Moreira

1685

Reducing Real-Time FPGA Streaming Latency via WebRTC Optimization

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Nana Lee

Mentor(s): Junfei Li

1686

2.5D Advanced Packaging: Fabrication of Silica Glass Interposers for Chiplet Integration

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ho Jun Lee; Romy Kim; Cecilie Reingaard Wiuff; CHO-YI HSIEH; Jou-Ting Lai; Aditi Magesh; Stuti Rastogi

Mentor(s): Peter Bermel; Saeed Mohammadi; Tiwei Wei

1687

Integrated Chip for UART Communication

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Michael Li; Yash Singh

Mentor(s): Cole Aaron Nelson

1688

Predicting Customer Ratings: A Data-Driven Approach to Optimizing EV Charging Stations

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Yun jing Lin; Cooper Jacob Wylie; Theodore Christian Lewis; Harleen Kaur Sohal; Rick Lee

Mentor(s): Davi Cordeiro Moreira

1689

Predicting NCAA Bracket Participation: Analyzing Fan Engagement Through Data

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Chi Lin; Brianna Annie Yu; Shuhan Yang; Kexin Han; Joan Zhi Wei Lu

Mentor(s): Davi Cordeiro Moreira

1690

Enhancing PPML with GPU Acceleration: Optimizing Secure Inference for Practical Use

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Chloe Lin; Sage Clysta Stefonic; Devansh Khandelwal; Nicolas Shulga

Mentor(s): Zahra Ghodsi; Yi En Gan

1691

Evaluating the Role of RIG-I in Triple Negative Breast Cancer

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Madison Elizabeth Liu

Mentor(s): Kyle Aaron Cottrell

1692

Determining If Lunar Magnetic Anomalies Can Shield Humans from Space Radiation

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Allison Michelle Loper

Mentor(s): Caue Sciascia Borlina

1693

Deciphering Sulfate Aerosol Formation and Processing: Integrating Observations and Modeling for Enhanced Atmospheric Predictions

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Katherine Ma; Jayaditya Borah; David Zhou Erickson

Mentor(s): Greg M Michalski

1694

Assessing Lunar Silicic Volcanism at the Compton-Belkovich Volcanic Complex

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Abigail Colleen Mackey

Mentor(s): Tabb Prissel

1695

Optimizing X-ray Fluorescence Spectral Fitting: Transitioning Fortran Code to Python

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Vishal Madhudi

Mentor(s): Linda Nie

1696

How has the xenophobia trend towards Asians on social media since COVID-19 impacted consumers of such content?

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Tisya Mahajan

Mentor(s): Carla B Rosell

1697

QUIP Waveguide affects.

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Mohit Manna

Mentor(s): Jason Dwight McKinney; Vivek vasantrao Wankhade

1698

SoCET: AXI Project

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): James Russell Mareachen; Nandan Varma Uppalapati; Andrew Joseph Cali; Duc Pham Minh; Avanish Karlapudi

Mentor(s): Mark Johnson; Jacob Chappell

1699

Evaluating Cross-Species Generalization Capabilities of Deep Learning Models in Laparoscopic Surgical Tool Segmentation

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Farren M Martinus

Mentor(s): Fiona Kolbinger; Zheyuan Zhang

1700

Analyzing, synthesizing and comparing leaves using LLM

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Kareena Karimpil Mathews

Mentor(s): Yingjie Chen; Songlin Fei

1701

How Should Parents Get Involved in Their Child's Education

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Jenna Mesker

Mentor(s): Linda E Haynes

1702

Fate of unregulated organic compounds at a 40-year dedicated municipal biosolids land disposal site

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Brandon George Miller

Mentor(s): Rodrigo Alvarez Ruiz; Youn jeong Choi; Linda S Lee

1703

Accelerator Matrix Processor (AMP) - Advanced Architecture

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Christopher Daniel Miotto; Joseph Alan Ghanem; Chase Yungmin Johnson

Mentor(s): Mark Johnson; Anand Raghunathan

1704

Interpreting the Artemis Accords: A Case Study on Safety Zones and International Space Law Discourse

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lucia Aurora Morton

Mentor(s): Mark Janis

1705

Engineering Cells to Decrease Autoimmune Response in Relation to Hashimoto

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Augustine Levi Muskat

Mentor(s): Leopold Noel Green

1706

Development of a SH-SY5Y Model to Mimic hiPCS Based Neuronal Differentiation for Toxicological Studies

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Navnoor Kaur Mutti

Mentor(s): Ribhav Mishra; Aaron B Bowman

1707

How university students perceive and use data storage and repository tools, with a particular focus on Airtable's ease of use and ability to handle complex workflows in collaborative settings.

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Anaey Gaurang Naik

Mentor(s): Kristen Marie Bellisario

1708

Advancing the use of X-Ray Fluorescence in obscured lead pipe detection

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Drew Thomas Novak

Mentor(s): Aaron James Specht; Thomas Ray Grier

1709

An Attempt at Identifying Tidal Disruption Events through ZTF

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Cadance William Lucas Ormsby; Vincent Xavier Velasquez; Tianhe Yang

Mentor(s): Ziwei Ding; Danny Milisavljevic

1710

Development of DNA linked Ser/Thr kinase activity sensing tool

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Jeffrey Park

Mentor(s): Dongwook Kim

1711

Advanced Impact Testing of Helicopter Fuel Tanks

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Paul Kyu-Hwan Park; Sucheol Woo

Mentor(s): Garam Kim

1712

Analysis of nanoparticle effects via histology

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Neha Paruchuri

Mentor(s): Matthew Louis Scarpelli

1713

PITCH Program Analysis

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Vishwajit Laxmanrao Patil

Mentor(s): Shauna Nicole Adams

1714

PASylation as a promising protein modification to prolong Interleukin 27 (IL-27) half-life

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Amanda Pawlecki

Mentor(s): Marxa Figueiredo; Ying Cheng Chen

1715

Application of Purple Air Sensors: Determining Air Quality Over Different Time Intervals

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Paige Bailey Pierson

Mentor(s): Ellen M Wells

1716

The Lived Experiences of Asian/American Adolescents Through Qualitative Research.

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Reese Caroline Pinkley

Mentor(s): Stewart C Chang Alexander

1717

Imaging neurotoxicity: Visualizing PFOS retention and distribution in the rat brain using DESI-MSI

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Hurshal Pol

Mentor(s): Jason R Cannon; Josephine Maria Brown; Christina R Ferreira; Fatema Mustafa Currim

1718

Project ADONIS (Astronomical Development and Operation of Neo-Moon Interstellar Systems)

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Adarsh Prathap; Shruti Subramaniyan; Emma Dannyelle Jobe; Atiksh Bhattacharya; Pranav Bulusu; Henry Joseph Ewald

Mentor(s): D. Marshall Porterfield

1719

Reassessing the Bakhshali Manuscript: A Critical Review of Its Translations and Knowledge Transmission

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Vaishnnavi Purram

Mentor(s): Nissanka Subodhana Wijeyeratne

1720

Unveiling Fan Decision-Making: Predicting Sports Championship Outcomes Through User Prediction Strategies

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Samyukta Rajaraman; Kriti Bagchi; Brandon Michael Dries; Alexander Logan Kapala; Christina Wan

Mentor(s): Davi Cordeiro Moreira

1721

Regulation of Nitrogenase in Metallo-Protease Inhibited Cultures of Cyanobacterium Crocosphaera subtropica ATCC 51142

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Malyka Ram

Mentor(s): Uma K Aryal; Punyatoya Panda; Rodrigo Mohallem Ferreira

1722

Minimal Motion Metrics: Discriminating Gait Types with Acceleration-Based Analysis for Real-World Monitoring

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Sridevi Ramkumar

Mentor(s): Satyajit S Ambike

1723

Expression of Inflammatory Genes in a Model of Post-Traumatic Osteoarthritis

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Amrita Rani Raparti

Mentor(s): Deva Chan; Ryan Michael Meister

1724

SCALE RH: Machine Learning-Based Optimization of Materials for Microelectronics

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Elana Simone Rhoge

Mentor(s): Alejandro H Strachan; Saswat Mishra

1725

Analyzing Research Trends: Exploring PICR Research Impact, Collaborations, and Expertise with Bibliometric Data

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Colin David Roberson

Mentor(s): Pete E Pascuzzi

1726

Reporting-Back in Environmental Health

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Kaitlyn Lea Robertson

Mentor(s): Ellen M Wells

1727

Boosting Brand Visibility: A Strategic Marketing Approach for TruVant Realty in Lafayette

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lauren Lee Ryan; Harry Hyunseung Moon; Tyler James Vanderwoude; Ashlee Elizabeth Laskowski; Aadi Dipak Patel; Kaitlyn Riley Ellison

Mentor(s): Stephen R Leitch

1728

Creating Comprehensive Modeling Tools for Simulating the Dynamics of Multi-Qubit Superconducting Systems Embedded in Arbitrary Transmission Line Networks

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Annabelle Rose Schultz; Annsh Santosh Navle; Christian Scheckel; Jack Thomas Willard; Jinhoo Yoon; Tanvi Chukka; Tylen Sean Fleming

Mentor(s): Thomas Edgar Roth; Ghazi Khan; Samuel Theodore Elkin

1729

Comparative Neurobehavioral and Molecular Effects of Chlorpyrifos Exposure in Pon-1 (-/-) and Wildtype Rat Models

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Sofia Schumann

Mentor(s): Jason R Cannon; Reeya Tanwar; Fatema Mustafa Currim; Josephine Maria Brown

1730

ExbB + ExbD in Neisseria: a Proton Channel Protein Puzzle

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Molly Genevieve Seeser

Mentor(s): Nicholas Noinaj

1731

Just "Beet" it? A Comparison of Road Salt Effects on the Life History of *Daphnia magna*.

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Koby M Sellner

Mentor(s): Catherine L Searle; Kurt Robert Lutz

1732

Pushing the Boundaries of Biological Tissues used for Paleodiet Reconstruction: Maggot Preparation for Stable Isotope Analysis

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Trinity Eve Sevic; Yadira Dominguez

Mentor(s): Melanie M. Beasley

1733

Escaping a Virtual Recitation Room

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Benjamin Matthew Shatkowski; David Michael Brethen-Thompson; Jaden Luke Polizzi; Logan Yu; Marcelo Ignacio Balsamo; Vishwadeep Singh

Mentor(s): Saanvi Singh

1734

3D Food Reconstruction

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ahmed Wael Shebl; Abdelrahman Hamdy Ghania; Zeyad Ayman El Afify

Mentor(s): Edward J Delp; Carla Zoltowski; Fengqing Zhu; Soudabeh Taghian Dinani

1735

A Computational Model of the Inferior Colliculus

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Anushka Shome

Mentor(s): Edward L Bartlett

1736

VIP Meta Horizon Escape Room

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Rayan Siddiqi; Alison Robin Liang; Zachary Loftus Baxtrom

Mentor(s): Saanvi Singh

1737

Auto ONNX Tester

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Christopher Michael Sigmund; Rohan Chandra Mudugere; Ivan Ni; Shrenick Sri Venkata Sai Gannamani; Lingyu Li; Donhyung Ko

Mentor(s): James C Davis; Purvish Jatin Jajal

1738

Multifunctional Materials in Aerospace Applications to Drone Landing Gear

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Pranav Singh; Colby Strohl; Bella Irma Schaetzle; Clara Marie Anne Goffioul; Cassius Samuel Sampson; Simran Nadig; Nathanael Adrian Lorincz

Mentor(s): Tyler N Tallman

1739

Inhibitory control is impaired during the exercise intervals but unaffected during the recovery intervals within a single session of high-intensity interval training.

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Neilan Narane Sivalogan

Mentor(s): Shih-chun Kao; Aaron C Kuznik

1740

Autopilot Integration for Lightweight Unmanned Fixed Wing Aircraft in PURT Testing Facility

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): John Henry Slater; Natalia Zagata; Braden Thomas Callaway; Lillian Ji; Jonathan George Cats; Anish Paspuleti

Mentor(s): James Michael Goppert; Worawis Sribunma; Chase Ja-ok Loeb

1741

Influence of Iron Concentration on *Naegleria gruberi* Survival in Pipe Biofilms

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Katie Nicole Smith

Mentor(s): Caitlin Rose Proctor

1742

Machine Learning in Motion

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Dean Snyder; Arnav Daryani; Marisa Jean Fredrickson; Natalia Cadence Hombs; Aryan Kaul; Hridhay Monangi; Abhik Mullick; Pratham Jigneshbha Patel; Sophia Elizabeth Steele

Mentor(s): Renee Murray; Frederick C Berry

1743

Therapeutic Efficacy of Hemp Seed Supplementation on DSS-Induced Colitis in Mice: Impacts on Macrophage Polarization and Inflammatory Response

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Sophia Su

Mentor(s): Weicang Wang

1744

A Pilot Study in Real-time Mental Workload Measurement Tool for use in Robotic Surgery Training

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Alpamys Sultanbek

Mentor(s): William Christian Zouzas; Denny Yu

1745

SCALE HI-AP: Impact of Slot Liner Compression on the Total Thermal Resistance of the Stator-Winding Assembly in Electric Motors

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lindsay Kathryn Sutherland

Mentor(s): Amy M Marconnet; Shanmukhi Sripada

1746

Accelerated Matrix Processor (AMP) - Scheduler Core

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Nick Taha; Pierce Yungjoon Johnson; Rishikesh Reddy Bathina; Argha Badhon Saha

Mentor(s): Anand Raghunathan; Mark Johnson

1747

Timing and Duration of Eating by Self-Report and Self-Taken Images and Its Link to Environmental Factors

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Soneya Tamang

Mentor(s): Heather A Eicher-Miller

1748

SCALE HIAP Heterogeneous Integration of 5G Receivers Using SAWLIT Chiplet Technology: Antenna Design and Impedance Matching on Glass Substrates

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Ethan Xinghan Tan

Mentor(s): Saeed Mohammadi

1749

Characterization of Branch Predictor Area for System-on-a-Chip Design

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Alexandra J Tauriainen; Andy Hanjun Hu; Mary Francis

Mentor(s): Mark Johnson; Cole Aaron Nelson

1750

Oxygen-18 Enhanced Atmospheric Chemistry Modeling: Improving Air Quality Predictions

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Thomas Preston Temperley

Mentor(s): Greg M Michalski

1751

Degradation Kinetics of Thermal Interface Materials in Immersion Cooling Systems

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Mark Joseph Tereck

Mentor(s): Shubhra Bansal

1752

Integrating Crosstalk Analysis into SoCET's Design Flow

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Levi J Thompson

Mentor(s): Timothy Francis Hein

1753

Designing and Developing a UVM Environment to Verify a Digital Counter

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Parin Paresh Timbadia

Mentor(s): Isaac P Hagedorn; Vishnu Chaithanya Lagudu

1754

Actuarial Science for Risk Mitigation and Economic Resilience in Developing Countries

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Isaac Robert Timmer

Mentor(s): Linda E Haynes

1755

Mechanical Characterization of superabsorbent polymer gels by spherical indentation

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Reece Avery Tippery

Mentor(s): Kendra A Erk; Akul Seshadri

1756

VIP Semiconductors@Birck Statistical Process Control for Solar Cell

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Benjamin Anderson Tofil; Alexandre Chan Tome; Rakhmatillokhon Avazkhon u Abdubaev

Mentor(s): Peter Bermel

1757

HCV E1/E2 Chimeric Constructs and Their Impact on Host Cell Surface Expression

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Cora Tolan

Mentor(s): Richard J Kuhn

1759

A Systematic Review of Lean Six Sigma Applications in the Semiconductor Lifecycle: From Design to E-Waste Management

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Shou-Fu Tseng; Brandon Anthony Farber

Mentor(s): Tho Le

1760

Crack Detection in Reinforced Concrete Structures Using Machine Learning

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Luke Steven Tuthill; Aditya Mallepalli

Mentor(s): Deepak Suthar; Luis David Fernandez Vasquez

1761

Visualizing microscopic shock physics

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Eylul Ustaoglu

Mentor(s): Kazuki Maeda; Thibault Moli Maurel Oujia

1762

Autonomous Motorsports Purdue - Electrical Team

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Aditya Verma; Samuel Elijah Nadol; Jae Hun Oh

Mentor(s): Shreya Ghosh

1763

Generative AI in Narrative Medicine: Strengthening Patient-Physician Relationships in Rural Healthcare

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Sophia Marielle Vina

Mentor(s): Richard D Johnson; Thomas J Rickert

1764

Accelerated Matrix Processor - Simulator

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Pranav Wadhwa; Kevin Luke Philips

Mentor(s): Mark Johnson; Anand Raghunathan

1765

Accelerated Matrix Processor - Systolic Array

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Charles James Wagner; Vinay Pundith

Mentor(s): Mark Johnson; Anand Raghunathan; Malcolm Lloyd Seib McClymont

1766

Customer Return Likelihood: Based on Demographics, Service Usage, and Customer Support Interactions

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Charlotte Ann Warren; Lahari Krishna Bikkavilli; Aksheet Sameer Paralkar; Madeeha Sadiq

Mentor(s): Davi Cordeiro Moreira

1767

The Effect of Trauma on Adrenergic Receptors

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Isabelle M Weir

Mentor(s): Jessica A Weatherford

1768

Predicting Cryptocurrency Price Movements: A Data-Driven Analysis of Trading Volume Trends

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Tyler Nathan Wichman; Hunter McCormick Danton; Robert Paul Bogdajewicz; Sruthi Bhamidipati; Shreya Maganti

Mentor(s): Davi Cordeiro Moreira

1769

SCALE HI-AP: Thermo-Mechanical Reliability of Bismuth Based Solders for High Temperature Packaging

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Kyle J Wiegand

Mentor(s): Shubhra Bansal

1770

Interfacial Phase Behavior and Growth of Hexagonal Phase in Concentrated Lamellar Sodium Laureth Sulfate Solution and Cetostearyl Alcohol Crystal

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Evan R Williams

Mentor(s): Matthew Kaboolian; Kendra A Erk

1771

Determining the Best Way to Teach Mathematics to High School Students

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Lillian K Wong

Mentor(s): Linda E Haynes

1772

Maximizing Revenue: Analyzing Hotel Rates and Booking Patterns

Presentation Time: Session 4: 1:30-2:30pm

Presenting author(s): Xinyue Zhao; Shih-En Wang; Jackson McKinney; Brody Lee Stevens

Mentor(s): Davi Cordeiro Moreira

RESEARCH TALKS

Research talks are delivered in Stewart Center, Room 214 & 218 on April 10, 2025. Names as in OURConnect.

7000

Modeling and Mitigating Lunar Habitat Disruptions

Presentation Time: STEW 214B at 9:00-9:20

Presenting author(s): Aaryan Sachin Lath

Mentor(s): Karen Marais

7001

Research and Development towards a Carbon-Fiber wire based drift chamber for Future Lepton Colliders

Presentation Time: STEW 214B at 9:20-9:40

Presenting author(s): Gino Christian Daniels

Mentor(s): Andy Jung; Sushrut Karmarkar

7002

Smart Prosthetics Through Deep Learning: A Comparative Study of Neural Architectures for Real-Time Activity Recognition

Presentation Time: STEW 214B at 9:40-10:00

Presenting author(s): Johnny Kamal Anton Hazboun; Aidan Cole Villegas

Mentor(s): Andres Torres; Mo Rastgaar

7003

AI for Education

Presentation Time: STEW 214C at 9:00-9:20

Presenting author(s): Zhenghao Xu; Colby Ben Acton; Alexander Peter Siladie; Samuel Enoch Jebaraj; Saimaurya Kanagala; Ryan James Hirsch; Shrey Agarwal; Sun Hong H Park; Kaya Tacer; Sarath Rajesh

Mentor(s): Zichen Miao

7004

Adaptive Speech Reconstruction Interface with AI (ASRIA): A Wearable-LLM Framework for Aphasia Rehabilitation

Presentation Time: STEW 214C at 9:20-9:40

Presenting author(s): Philip R Liu; Richard John Silvester

Mentor(s): Wenzhuo Wu; Robert Jose Ccorahua santo; Jing Jiang

7005

Evaluating Blood Velocity Changes in Thoracic Aneurysm Progression for Rupture Risk Assessment

Presentation Time: STEW 214C at 9:40-10:00

Presenting author(s): Suhani Lodha

Mentor(s): Cortland Hannah Johns; Craig Goergen

7006

Reviving SLIP: Lightweight Networking for AFTx07

Presentation Time: STEW 214D at 9:00-9:20

Presenting author(s): Jiaming Situ

Mentor(s): Cole Aaron Nelson

7007

The Evolution of Tyrosine Kinase Activity and Chance, Contingency, and Necessity in Evolution

Presentation Time: STEW 214D at 9:20-9:40

Presenting author(s): Michael David Gardner

Mentor(s): Brian Patrick Ha Metzger

7008

Regime Switching Financial Model with Signature

Presentation Time: STEW 214D at 9:40-10:00

Presenting author(s): Yang Lyu

Mentor(s): Kiseop Lee; Jiwon Jung

7009

Modeling Drug Transport in the Umbilical Cord: Fetal Membrane

Presentation Time: STEW 218A at 9:00-9:20

Presenting author(s): Annika Mallari Munjal; Emma Elizabeth Wagner; Morgan Stephens; Dipali Rebecca Abraham; Ishaan Pratap Singh; Mira Nimesh Patel; Alexander Carnevale

Mentor(s): Arezoo Ardekani; Ryan B Wagner

7010

Prioritization of HPV Vaccine Preventable Diseases Among Emerging Adults – Implications for Health Education and Communication

Presentation Time: STEW 218A at 9:20-9:40

Presenting author(s): Caroline Rhea Packee; Avery Grace Brubaker

Mentor(s): Shandey Derisa Malcolm; Monica Kasting; Samantha L. Ky

7011

A qualitative analysis of cyclical patterns in bobcat movement in relation to seasonal flooding and species life history

Presentation Time: STEW 218A at 9:40-10:00

Presenting author(s): Sierra Hunnicutt

Mentor(s): Kristen Marie Bellisario

7012

More than Financial Risk: Harassment and Financial Dependence in the Gig Economy

Presentation Time: STEW 218C at 9:00-9:20

Presenting author(s): Julieta Claudia Aguilar

Mentor(s): Jeremy E Reynolds

7013

Tradwives: Understanding the effectiveness of grassroots social media specialists

Presentation Time: STEW 218C at 9:20-9:40

Presenting author(s): Marissa Elizabeth Velazquez

Mentor(s): Spencer Dean Stewart

7014

Uncovering the Intentions behind the Unjust Conviction and Imprisonment Statute

Presentation Time: STEW 218C at 9:40-10:00

Presenting author(s): Emma Lynn Johnson

Mentor(s): logan Strother

7015

Pulse Flow Reverse Osmosis System for Home Scale Use

Presentation Time: STEW 214B at 10:00-10:20

Presenting author(s): Lucca Su Mo

Mentor(s): Jose M Garcia Bravo; Ali Naderi Beni; Jarrod F Robbins; David Warsinger

7016

Power, Performance, and Area Optimization of SoCET's AFTx07 Chip

Presentation Time: STEW 214B at 10:20-10:40

Presenting author(s): Ammar M Mukadam

Mentor(s): Timothy Francis Hein; Mark Johnson

7017

Investigating Combustion Instabilities in Turbulent Jet Ignition for Internal Combustion Engines

Presentation Time: STEW 214B at 10:40-11:00

Presenting author(s): Mo Chen

Mentor(s): Afaque Alam; Li Qiao

7018

Modeling metabolic dysfunction-associated fatty liver disease using liver organoids

Presentation Time: STEW 214C at 10:00-10:20

Presenting author(s): Anna Catherine Dressman

Mentor(s): Sunghee Park

7019

Snake Tongue Flicking Project

Presentation Time: STEW 214C at 10:20-10:40

Presenting author(s): Aditya Kumar

Mentor(s): Pranjali Anand; Pavlos Vlachos

7020

Identity Negotiation among LGBTQ+ Youth Experiencing Housing Insecurity through a Localized Engineering Program

Presentation Time: STEW 214C at 10:40-11:00

Presenting author(s): Maerianna Jane Artang

Mentor(s): Dhinesh Balaji Radhakrishnan; Jennifer J DeBoer

7021

Sensory Synergy: How a Frog-Biting Mosquito Uses Multimodal Cues for Host-Seeking

Presentation Time: STEW 214D at 10:00-10:20

Presenting author(s): Anna Judy Lozen

Mentor(s): Ximena Bernal; Richa Singh

7022

Streamlining Proteomics Data Analysis: A Full-Stack Application and Statistical Pipeline for Enhanced Accuracy and Interpretation

Presentation Time: STEW 214D at 10:20-10:40

Presenting author(s): Nathan Xuheng Li; Vatsal Sanjeevkum Dudhaiya; Tingyu Yin; Rachel Catherine D'Souza; Purav Matlia; Isaac Kojima Shane

Mentor(s): Marco Hadisurya; Amirhesam Mashaollahi; Zhuojun Luo

7023

Identifying potential enhancers of regeneration after zebrafish spinal cord injury

Presentation Time: STEW 214D at 10:40-11:00

Presenting author(s): Nikhil Samit Sadavarte

Mentor(s): Daniel Suter

7024

Researching the Old Naval Observatory

Presentation Time: STEW 218A at 10:00-10:20

Presenting author(s): Alyssa Marie Berger; Marisa Rose Crescent

Mentor(s): Ashima Krishna

7025

Assessing Learning Gains in Energy-Focused Research Experience for Undergraduates (REU) Program

Presentation Time: STEW 218A at 10:20-10:40

Presenting author(s): Rhea Dutta

Mentor(s): Lisa B Bosman

7026

Ecological impact of deer control hunts on wildlife activity in Indiana

Presentation Time: STEW 218A at 10:40-11:00

Presenting author(s): Antonia Christina Alexiou

Mentor(s): Kristen Marie Bellisario

7027

Data Mining for CityBus Ridership

Presentation Time: STEW 218B at 10:00-10:20

Presenting author(s): Neha A Venkatraman; Esther L Larson; Jaden R Azar; Harshini Malarvannan

Mentor(s): Xing Wang

7028

Enhancing Healthcare Decision-Making with Explainable Generative AI

Presentation Time: STEW 218B at 10:20-10:40

Presenting author(s): Chase Nicholas Hamdan; Yash Rajendra Ashtekar; Utkarsh Bali
Mentor(s): Pengyi Shi

7029

Smart Cookies: A Predictive Approach to Girl Scout Cookie Sales

Presentation Time: STEW 218B at 10:40-11:00

Presenting author(s): Gabriel Morales Nunez; Rishita Korapati
Mentor(s): Davi Cordeiro Moreira

7030

Play that Funky Music Pekin Ducks Part 1: Effects of Auditory Enrichment on Pekin Duck Welfare

Presentation Time: STEW 218C at 10:00-10:20

Presenting author(s): Brynn Camille Peterson; Gabriella Emilia Chambers; Grace Catherine Ayres; Emma Lynn Stuart
Mentor(s): Greg Fraley; Jenna M Schober

7031

Play that Funky Music Pekin Duck Part 2: Effects of Auditory Enrichment on production variables.

Presentation Time: STEW 218C at 10:20-10:40

Presenting author(s): Grace Catherine Ayres; Gabriella Emilia Chambers; Brynn Camille Peterson; Emma Lynn Stuart
Mentor(s): Greg Fraley; Jenna M Schober

7032

Effects of Colostrum or Milk Replacer Feeding on Sertoli Cell Proliferation and Seminiferous Tubule Area of Neonatal Male Piglets

Presentation Time: STEW 218C at 10:40-11:00

Presenting author(s): Addison Mae Hill
Mentor(s): Theresa M Anderson; Linda Marie Beckett

7033

Using Reinforcement Learning for Automating Robot Path Planning in Manufacturing

Presentation Time: STEW 214B at 11:00-11:20

Presenting author(s): Aditya Manoj Nair
Mentor(s): Jaeeun Kim

7034

Utilizing the CycleGAN Architecture for Motion-Correction in HR-pQCT Imaging

Presentation Time: STEW 214B at 11:20-11:40

Presenting author(s): Anika Mathur
Mentor(s): Farhan Sadik; Rachel Kathleen Surowiec

7035

Synthetic Data Generation for Enhanced Electric Vehicle Charging Demand Prediction

Presentation Time: STEW 214B at 11:40-12:00

Presenting author(s): Jaewon Cho; Alexa Joan Noto; Akanksh Rao; Ankitha Mallekav

Mentor(s): Sivaranjani Seetharaman

7036

Enhancing Diagnostic Accuracy of Atrioventricular Valve Regurgitation in Single Ventricle Hearts Using Machine Vision Algorithms

Presentation Time: STEW 214C at 11:00-11:20

Presenting author(s): Haseung Jun

Mentor(s): Brett A Meyers

7037

Embodied Learning in Statistics: Using Gestures to Enhance Statistical Reasoning of Regression and Correlation

Presentation Time: STEW 214C at 11:20-11:40

Presenting author(s): Zhengyi Jiang

Mentor(s): Jason Wade Morphew; Junior Anthony Bennett

7038

Acoustic Levitation for Additive Manufacturing

Presentation Time: STEW 214C at 11:40-12:00

Presenting author(s): Quintin David Dumouchelle

Mentor(s): Michael P Sealy; Luz Sotelo

7039

Multi-step Enzymatic Retrosynthesis using Monte Carlo Tree Search

Presentation Time: STEW 214D at 11:00-11:20

Presenting author(s): Danny Andre Thornewell

Mentor(s): Karthik Sankaranarayanan; Olga Costa Alves Souza

7040

Optimizing Platinum Nanoparticle Deposition for Enhanced Stability in Electrochemical Aptamer-Based Sensors

Presentation Time: STEW 214D at 11:20-11:40

Presenting author(s): Sirish Meher Reddy Kayam

Mentor(s): Vanshika Gupta; AnhThu Pham; Jeffrey Edward Dick

7041

Artificial Intelligence in Music - Computer Vision

Presentation Time: STEW 214D at 11:40-12:00

Presenting author(s): Gurtej Singh Bagga; Trevor Mission Ju; Benjamin Joseph Taylor; Jackson Patrick Shields; Dinmukhamed Mukhtar Tynysbay; Han Li; Hanako S Keney; Paige Lorenz; Aneesh Pendyala; Yumin Kim

Mentor(s): Yeon Ji Yun; Yung-Hsiang Lu

7042

Cultivating Cultural Awareness and Professional Growth: Reflections on Internship Experiences at Purdue's AAARCC.

Presentation Time: STEW 218A at 11:00-11:20

Presenting author(s): Jae Yon Kim

Mentor(s): Pamela Sari

7043

The Inclusive Space Project: Adapting Physical Lab Spaces to Serve All Students

Presentation Time: STEW 218A at 11:20-11:40

Presenting author(s): Frances Margaret Bajorat

Mentor(s): A.J. Schwichtenberg; Amy Janis; Moon Rae West

7044

Title: Sex Differences in Social Isolation Effects on Compulsive Related Behavior in Crossed High Alcohol Preferring Mice

Presentation Time: STEW 218A at 11:40-12:00

Presenting author(s): Caitlin Alexandra Williams

Mentor(s): Julia Chester

7045

Human vs. AI: Efficacy of LLMs in Performing Thematic Analysis

Presentation Time: STEW 218B at 11:00-11:20

Presenting author(s): Jose Jorge Bueso; Vidya Reddy Madana

Mentor(s): Prateek Jaiswal; Aparajita Jaiswal

7046

Analysis of Rental Markets at Big Ten Universities

Presentation Time: STEW 218B at 11:20-11:40

Presenting author(s): Jakub John Jasinski

Mentor(s): Michael Donald Eriksen

7047

Crypto-Mining Integrated Software

Presentation Time: STEW 218B at 11:40-12:00

Presenting author(s): Jonathan S Carr; Samuel Joshua McBroom

Mentor(s): Stewart F Bauserman; Steven R Dunlop; Saanvi Singh

7048

Comparative measurement of sow shoulder sore response to common and novel treatments

Presentation Time: STEW 218C at 11:00-11:20

Presenting author(s): Abagayle Caitlin Wright

Mentor(s): Allan Schinckel; Andrew James Fisk

7049

Balancing Science and Society: A Solution for Long-term Nuclear Waste Management, Finland's Onkalo Deep Geological Repository

Presentation Time: STEW 218C at 11:20-11:40

Presenting author(s): Abigail Elizabeth Preston

Mentor(s): Austin Rory Cooper; Miriam Marina Barnum

7050

The Black Genealogical Research Project: Hill-Williams-Coleman Family of South Bend

Presentation Time: STEW 218C at 11:40-12:00

Presenting author(s): NahShon Zion Williams

Mentor(s): Ashima Krishna

7051

Investigating the role of cell-cell communication and size in Calcium wave propagation

Presentation Time: STEW 214B at 12:00-12:20

Presenting author(s): Kenneth David Siefken

Mentor(s): FNU Nilay Kumar

7052

Anchor Testing in Reinforced Concrete Structures

Presentation Time: STEW 214B at 12:20-12:40

Presenting author(s): Hamond Rahardjo

Mentor(s): Deepak Suthar

7053

Refining Text Detection using Transfer Learning and a Unified Approach to Text Localization and Transcription

Presentation Time: STEW 214B at 12:40-1:00

Presenting author(s): William Henry Stevens; Karthik Selvaraj; Gabriel A Torres; Leo Ross Benaharon; Surya Teja Sripathi

Mentor(s): Fengqing Zhu; Carla Zoltowski; Edward J Delp; Soudabeh Taghian Dinani

7054

Using RNA Sequencing to Evaluate Exercise as an Intervention for Unloading-Induced Joint Degeneration

Presentation Time: STEW 214C at 12:00-12:20

Presenting author(s): Allison Faye Matovic

Mentor(s): Mikayla Angelique Roach; Ruth Singh; Deva Chan

7055

Development of a Novel Wave-Powered Dual-Stage Pulse-Flow Reverse Osmosis System

Presentation Time: STEW 214C at 12:20-12:40

Presenting author(s): Nikitha Sam; Diya Banerjee; Ryan Kumar San Juan; Nishtha Singh; Trysta Dephin Chiang; Lily Avery Waterman; Alex Joseph Nagel; Benjamin C Martin; Zihao Qin

Mentor(s): David Warsinger; Jose M Garcia Bravo

7056

BrainTrain: Human Behavior Alignment Improves the Robustness of Neural Networks

Presentation Time: STEW 214C at 12:40-1:00

Presenting author(s): Bharath Anand

Mentor(s): Ananth Y Grama

7057

A Triangular Ladder of Superconducting Qubits for Quantum Simulation

Presentation Time: STEW 214D at 12:00-12:20

Presenting author(s): Santiago Lopez

Mentor(s): Alex Ruichao Ma

7058

MicroRNA-31 Regulates Neutrophil Migration and Activation

Presentation Time: STEW 214D at 12:20-12:40

Presenting author(s): Elizabeth Christine Farrell

Mentor(s): Tyler Renee Pikes

7059

Automation Methods for Gamma Ray Spectroscopy and Data Analysis

Presentation Time: STEW 214D at 12:40-1:00

Presenting author(s): James Thomas Pittard; Mason Patrick Julius Levere; Sydney Metz

Mentor(s): Andy Jung

7060

The Impact of Children's Sensory Perception Abilities on Early Lexical Development

Presentation Time: STEW 218A at 12:00-12:20

Presenting author(s): Victoria Tuell

Mentor(s): Arielle Borovsky; Philip Robert Curtis

7061

Effects of Hearing Impairment and Cognitive Load on Postural Sway

Presentation Time: STEW 218A at 12:20-12:40

Presenting author(s): Mia An-Mei Schmetter

Mentor(s): Alexander L Francis

7062

Ultrastructural Characterization of White Adipose Tissue in Albumin Knockout Mice

Presentation Time: STEW 218A at 12:40-1:00

Presenting author(s): Yen-hsi Lai

Mentor(s): Gregory C Henderson

7063

In Silico Analysis of Calmodulin-Calcium Binding Sites and their effects on Adenylyl Cyclase 1 Activation

Presentation Time: STEW 218B at 12:00-12:20

Presenting author(s): Shreya Krishnan

Mentor(s): Jianing Li; Tongtong Li; Talon Hicks

7064

Engineering Stable HEK293T Viral Production Cells to Achieve High Lentiviral Vector Titer for Cell-based Immunotherapy

Presentation Time: STEW 218B at 12:20-12:40

Presenting author(s): Khanh Ha Nguyen
Mentor(s): Sandro Matosevic; Soumyajit Das

7065

Optimization of Diphyllin Analog Solubility for Ebolavirus Treatment as a V-ATPase Inhibitor
Presentation Time: STEW 218B at 12:40-1:00

Presenting author(s): Oliver Hu
Mentor(s): Vincent Jo Davisson

7066

How Audience Relations, University Practices, and Logistics of Student Journalism Impact the Journalistic Practices Used by Student Journalists
Presentation Time: STEW 218C at 12:00-12:20

Presenting author(s): Makenzie Lee Albert; Taylor Gloria Vic Graham; Yaajushi Valluri
Mentor(s): Rachel Fundator; Clarence Maybee

7067

The Implications of Information Challenges on Student Journalists
Presentation Time: STEW 218C at 12:20-12:40

Presenting author(s): Norah Ann Wills; Harsha Bansiwali; Sophia Victoria Pimentel
Mentor(s): Rachel Fundator; Clarence Maybee

7068

Laponite-based clay inks for natural material 3D printing
Presentation Time: STEW 218C at 12:40-1:00

Presenting author(s): Emily Katherine Slotegraaf
Mentor(s): Maria Caterina Santagata; Luis Enrique Garzon Sabogal; Tejas Gorur Sreenivasa Murthy

7069

Deep Learning for Enhanced Subvisible Particle Analysis in Auto-Injector Devices
Presentation Time: STEW 214B at 1:00-1:20

Presenting author(s): Jiwon Seo; Sai Aiswarya Sadagopan; Samskrithi Sivakumar; Jinhwan Kwon; Anika Mathur
Mentor(s): Brett A Meyers; Pavlos Vlachos; Reza Babakhani Galangashi

7070

Synthesizing and Understanding Facility-Level Water Consumption Datasets in Computing at Scale
Presentation Time: STEW 214B at 1:20-1:40

Presenting author(s): Isha Shamim; Jaewon Cho
Mentor(s): Yi Ding; Inez Hua

7071

Optimizing Application Software for Greater Energy Efficiency using Large Language Models
Presentation Time: STEW 214B at 1:40-2:00

Presenting author(s): Rishi Mantri; Arjun Sandeep Gupte; Chien Chou Ho; Leo Deng; Michael Lie Setiawan
Mentor(s): James C Davis; Huiyun Peng

7072

Adaptive Trip Extraction from GPS Data: A Context-Sensitive Approach

Presentation Time: STEW 214C at 1:00-1:20

Presenting author(s): Mahit Bheema

Mentor(s): Satish V Ukkusuri; Shagun Mittal

7073

Real-Time Agent Motion Prediction and Overtaking in Multi-Agent Autonomous Racing Using Deep Neural Networks

Presentation Time: STEW 214C at 1:20-1:40

Presenting author(s): Myron Milad Tadros; Abdelrahman Ahmed Safw Eissa; Ahmed Sayed Omar Omar; Bola Yosry Zaky Warsy; Omar Ahmed Roshdi Badawi Abousheishaa; Rohin Rajesh Nair

Mentor(s): Andres Felipe Hoyos Moreno; Samuel Labi

7074

Rapid Diagnostic Test for HPV 16 & 18

Presentation Time: STEW 214C at 1:40-2:00

Presenting author(s): Francesca Chiara Hamacher

Mentor(s): Jacqueline Linnes; Karin F K Ejendal

7075

Exploring Protein Environmental Effects on the Vibrational Spectrum of Chlorophyll a at Room Temperature

Presentation Time: STEW 214D at 1:00-1:20

Presenting author(s): Sarah A Alvarez

Mentor(s): Michael Earl Reppert

7076

Reducing Hallucination in LLM-based Scientific Literature Summarization Using Peer Context Outlier Detection

Presentation Time: STEW 214D at 1:20-1:40

Presenting author(s): Daniel C Xie

Mentor(s): Yexiang Xue; Maxwell Joseph Jacobson

7077

Wildfire Impacts on Air Quality in the Midwestern United States

Presentation Time: STEW 214D at 1:40-2:00

Presenting author(s): Parth Thakre

Mentor(s): Gouri Gouri Prabhakar

7078

From BirdNet to BugNet: Leveraging AI to enhance Cicada Detection with comparison to bird calls

Presentation Time: STEW 218A at 1:00-1:20

Presenting author(s): Zhixin Cai

Mentor(s): Kristen Marie Bellisario; Christine Harrison Elliott

7079

Mapping Wildlife-Vehicle Collision Hotspots in Indiana: Impacts & Implications on Wildlife Corridor Success

Presentation Time: STEW 218A at 1:20-1:40

Presenting author(s): Lukas Benjamin Kraft

Mentor(s): Kristen Marie Bellisario

7080

An Assessment of Student Participation in the NSF REU Site: Growing Entrepreneurially-Minded Undergraduate Researchers with New Product Development in Applied Energy

Presentation Time: STEW 218A at 1:40-2:00

Presenting author(s): Ava Thant Samuel

Mentor(s): Lisa B Bosman

7081

PCNA-NKp44 Interaction Provides Avenue for Immunotherapeutics

Presentation Time: STEW 218B at 1:00-1:20

Presenting author(s): Jenna Yeager

Mentor(s): Vincent Jo Davisson

7082

Targeting High-risk HPV E6: Structure Based E6-p53 Inhibition

Presentation Time: STEW 218B at 1:20-1:40

Presenting author(s): Sungyu Choi

Mentor(s): Vincent Jo Davisson

7083

A Software Application to Predict and Optimize Healthcare Insurance Costs

Presentation Time: STEW 218B at 1:40-2:00

Presenting author(s): Eric Tysinger; Leo Zheng; Michael Lance Whitfield; Nelson A Paguada

Mentor(s): Matthew Lanham

7084

Building Barriers: Natural Variation Contributes to Reproductive Isolation in *Arabidopsis thaliana*

Presentation Time: STEW 218C at 1:00-1:20

Presenting author(s): Ava Grace Barnes

Mentor(s): Leonor Maria de Fatima Chagas Boavida

7085

Economic and Environmental Comparison of Tillage Systems in Illinois

Presentation Time: STEW 218C at 1:20-1:40

Presenting author(s): Yufei You

Mentor(s): Michael R Langemeier

7086

Adaxial versus Abaxial Translocation in Dicots for Organic Nanocarriers Produced via FNP

Presentation Time: STEW 218C at 1:40-2:00

Presenting author(s): Laurian Kate Lien
Mentor(s): Kurt Ristroph; Lucas Johnson

7087

NeuralRace: Autonomous Racing through Neural Perception, Planning and Control

Presentation Time: STEW 214B at 2:00-2:20

Presenting author(s): Manav Nikhil Gagvani; Sangeet Mohan; Zachary Thomas Nena; Felipe da Paixao

Mentor(s): Shreya Ghosh

7088

ZnO Nanowire-Based Wearable Sensor for driver health Monitoring

Presentation Time: STEW 214B at 2:20-2:40

Presenting author(s): Zixuan Fei

Mentor(s): Tuhina Saxena; Wenzhuo Wu

7089

ASTRO-USA: Analog Simulation Training and Research Outpost Utilizing Self-Sustaining Architecture

Presentation Time: STEW 214B at 2:40-3:00

Presenting author(s): Manya Devang Kadiwala; Shruti Subramaniyan

Mentor(s): D. Marshall Porterfield; Dawn Whitaker; Robert M Stwalley

7090

Machine Learning driven characterization of thermal conductivity in materials

Presentation Time: STEW 214C at 2:00-2:20

Presenting author(s): Jonathan Steven Hickie

Mentor(s): Krutarth Hemant Khot; Xiulin Ruan

7091

Single-Wheel Omnidirectional Drive

Presentation Time: STEW 214C at 2:20-2:40

Presenting author(s): Xiaoyang Yu

Mentor(s): charles holliday Jenckes

7092

SWARMS: Multi-Agent Control Simulation

Presentation Time: STEW 214C at 2:40-3:00

Presenting author(s): Amikosh Dube; Jay Bhavesh Gandhi; Noah Anthony Wisniewski

Mentor(s): Shreyas Sundaram; Younggil Chang

7093

DMRG Simulation of Spin-Chain Multichannel Kondo Model

Presentation Time: STEW 214D at 2:20-2:40

Presenting author(s): Jordan Alexander Gaines

Mentor(s): Jukka Ilmari Vayrynen

7094

Accurate prediction of macroscopic transport during the Mott transition using fractal resistor network

and surface imaging

Presentation Time: STEW 214D at 2:40-3:00

Presenting author(s): Po-Yu Chen

Mentor(s): Erica Carlson

7095

Supporting Youth Learning and Development in an Afterschool Program

Presentation Time: STEW 218A at 2:00-2:20

Presenting author(s): Amanda Reese Catey

Mentor(s): Temitope Folasade Adeoye Olenloa

7096

Integrating Digital Twins and Virtual Reality for Advanced Manufacturing Education

Presentation Time: STEW 218A at 2:20-2:40

Presenting author(s): Alberto Minaya Lopez

Mentor(s): Ramses Martinez

7097

Biological and Behavioral Effects of PCOS on Cognition

Presentation Time: STEW 218A at 2:40-3:00

Presenting author(s): Linnaea Eileen Krupke

Mentor(s): Kimberly Kinzig; Brent Benjamin Bachman; Erisa Met Hoxha

7098

Land Price and Land Use Gradients in China: Empirical Evidence on the Monocentric Model and Policy Influences

Presentation Time: STEW 218B at 2:20-2:40

Presenting author(s): Yizhou Fang

Mentor(s): Ben Zou

7099

Opportunities and Risks of Biometric Security in the Age of Generative AI

Presentation Time: STEW 218B at 2:40-3:00

Presenting author(s): Amanda Huang

Mentor(s): Sudip Vhaduri

7100

Analyzing a gradient of effective corridor widths for mesocarnivores in Indiana

Presentation Time: STEW 218C at 2:00-2:20

Presenting author(s): Katie Luo Hong

Mentor(s): Kristen Marie Bellisario

7101

Dress and Trade at Fort Ouiatenon and New France: Economic and Social Relations as Evidenced by Cloth Bale Seals

Presentation Time: STEW 218C at 2:20-2:40

Presenting author(s): Jacob Scott Culp

Mentor(s): Harold Kory Cooper

7102

Deliberative Polling: A Tool for Realizing Practical Deliberative Democracy?

Presentation Time: STEW 218C at 2:40-3:00

Presenting author(s): Lynlee Morgan Rice

Mentor(s): Mary F Scudder

7103

Modeling Drug Transport in the Umbilical Cord: A Fluidic Approach to Pregnancy Pharmacokinetics

Presentation Time: STEW 214B at 3:00-3:20

Presenting author(s): Dipali Rebecca Abraham; Mira Nimesh Patel; Alexander Carnevale

Mentor(s): Arezoo Ardekani; Ryan B Wagner

7104

RISCV Multicore Extension and Benchmarking

Presentation Time: STEW 214B at 3:20-3:40

Presenting author(s): Aishwarya Saikrupa Anand; Seongjoong Yim

Mentor(s): Cole Aaron Nelson; Mark Johnson

7105

The impact of gut microbiome dysbiosis and subsequent intervention on restoring spinal health in a murine model

Presentation Time: STEW 214B at 3:40-4:00

Presenting author(s): Sarah Marie Staller

Mentor(s): Deva Chan; Cameron Xavier Villarreal

7106

Bluetooth Functional Near Infrared Spectroscopy (fNIR) Software for Detection of Traumatic Brain Injury (TBI) in Athletes

Presentation Time: STEW 214C at 3:20-3:40

Presenting author(s): Khushi Choksi; Elan Smyla; Ramya Prasanna; Ian Kwan Yin Lam; Saqib Manjur Chowdhury; Navya Gupta; Nasser H Sanwari; Hannah Jordan Margulis; Grant Dlugos Congdon; Kenneth David Siefken; Paras Sandeep Punater

Mentor(s): Hammad Furqan Khan

7107

AI-Driven Non-Invasive Wireless Blood Pressure Assessment via Triboelectric Sensors

Presentation Time: STEW 214C at 3:40-4:00

Presenting author(s): Kevin Nathan Qu; Pranav Perumal; Padmaja Sachin Khairnar

Mentor(s): Robert Jose Ccorahua santo; Wenzhuo Wu

7108

USING TOPOGRAPHY TO SEARCH FOR STRATOVOLCANOES ON MARS: RESULTS FROM THE JEZERO AND NE SYRTIS REGION

Presentation Time: STEW 214D at 3:00-3:20

Presenting author(s): Samuel Garrison D Singer

Mentor(s): Briony H Horgan

7109

Genetic Engineering of SLC1A5 for Improved NK Cell Metabolism Against Brain Tumors

Presentation Time: STEW 214D at 3:20-3:40

Presenting author(s): Luke Nathaniel Abram

Mentor(s): Sandro Matosevic; Shambhavi Sanjay Borde

7110

Development of a data calibration pipeline and identification and mapping of pyroxene in lunar spectroscopy via RGB image and absorption band analysis

Presentation Time: STEW 214D at 3:40-4:00

Presenting author(s): Jessica Marie Cyr; Arunima Saha

Mentor(s): Kris Laferriere

7111

Music's Impact on Asian/American Adolescents

Presentation Time: STEW 218A at 3:00-3:20

Presenting author(s): Michelle Wan

Mentor(s): Stewart C Chang Alexander; Pamela Sari

7112

Monitoring the size distribution of aerosols in manual metal arc welding fumes

Presentation Time: STEW 218A at 3:20-3:40

Presenting author(s): Shane Kevin Limas

Mentor(s): Jae Hong Park

7113

Systemic Inflammatory and Organ-Specific Tissue Remodeling Responses Induced by Acute Electronic Cigarette Vapor Exposure.

Presentation Time: STEW 218A at 3:40-4:00

Presenting author(s): Andrew Patrick Folkers; Thomas John Cowden

Mentor(s): Thivanka M Muthumalage

7114

Student Identification of Persuasion Strategies in AI-simulated Financial Scams

Presentation Time: STEW 218B at 3:00-3:20

Presenting author(s): Jennifer L Harvey

Mentor(s): Tatiana Ringenberg

7115

Securing Aviation Communications: A Network-Based Approach

Presentation Time: STEW 218B at 3:20-3:40

Presenting author(s): Andrew Markel

Mentor(s): Jason Schoenbeck

7116

The effect of the addition of MXene (Ti₃C₂Tx) on the long term stability of poly(3,4-ethylenedioxythiophene): poly(styrene sulfonate) (PEDOT:PSS) bioelectronic interfaces

Presentation Time: STEW 218B at 3:40-4:00

Presenting author(s): Charlita Sinmak

Mentor(s): Ken Yoshida; Babak Anasori

7117

Gender Affinity in State Legislature Campaign Donations

Presentation Time: STEW 218C at 3:00-3:20

Presenting author(s): Maylee Ann Rollins

Mentor(s): Eric Waltenburg

7118

Stalin and Groupthink: How Stalin's Personality Colt Existed Alongside Collective Leadership

Presentation Time: STEW 218C at 3:20-3:40

Presenting author(s): Isidore Peter White

Mentor(s): Christopher Ewing

7119

Thermal Actuation Inspired Machine Learning Algorithm for Reconfigurable Antenna

Presentation Time: STEW 218C at 3:40-4:00

Presenting author(s): Prisha Rachakonda; Adina Ioana Margineantu; Tanya Vijay; Sishir Mahavadi; Jacob Daniel

Mentor(s): Ran Dai

7120

Restoring Functional Independence: A Grip-Assistive Glove for Muscular Dystrophy through Responsive Motor Control

Presentation Time: STEW 214B at 4:00-4:20

Presenting author(s): Luke Brian Johnson; Shreya Prakash; Ariel Scout Hudson; Uday Mittal; Supreet Mishra; Anjan Nanisetti

Mentor(s): Zachary Robert Davis; Rahaf Salim

7121

Analyzing Gestures in Statistics Instruction: A Study on Digital Video Learning Environments

Presentation Time: STEW 214B at 4:20-4:40

Presenting author(s): Aashvi Miten Majmundar

Mentor(s): Jason Wade Morpew; Junior Anthony Bennett

7122

Intrinsically Self-healable Laser-Induced Graphene Pressure for Ergonomic Hazard Monitoring

Presentation Time: STEW 214B at 4:40-5:00

Presenting author(s): Abhinav Chowdary Annabathula

Mentor(s): Haoqi Wu; Pedro Henrique de Souza Barbosa

7123

Cardiac Remodeling by Pressure and Volume Overload During Pregnancy

Presentation Time: STEW 214C at 4:00-4:20

Presenting author(s): Samantha Stebbings

Mentor(s): Elnaz Ghajar-Rahimi; Craig Goergen

7124

VIP Bechtel IoT

Presentation Time: STEW 214C at 4:20-4:40

Presenting author(s): Xuan Chen; Shivanya Chandra; Naeem Saeed Bahemia; Aarav Mangla; Isha

Virat Yanamandra; Nina Hu; Alexander Chen

Mentor(s): Matthew A Swabey; Jaeeun Kim

7125

Studying Cello Bowing Performance through a Robotic Arm and Reinforcement Learning

Presentation Time: STEW 214C at 4:40-5:00

Presenting author(s): Tanishaa Shah; Jiashu Liu; Samantha Sudhoff; Pranesh S Velmurugan; Vincent Wentao Zhao

Mentor(s): Yung-Hsiang Lu; Yeon Ji Yun

7126

Physical Characterization of Atmospheric Microplastics in Precipitation

Presentation Time: STEW 214D at 4:00-4:20

Presenting author(s): Frances Geraldine Johnson

Mentor(s): Alexandria Vincenza Johnson

7127

Refining Atmospheric Chemistry Models: The Role of O-17 in Tracing Oxidation Reactions

Presentation Time: STEW 214D at 4:20-4:40

Presenting author(s): Nathan Nguyen

Mentor(s): Greg M Michalski

7128

Enhancing Low-Resource Machine Translation Using Synthetic Data Augmentation

Presentation Time: STEW 214D at 4:40-5:00

Presenting author(s): Akshith Garapati

Mentor(s): Linda E Haynes

7129

Influence of Manganese Exposure on SHI-Adapted SH-SY5Y Cells: Neurotoxicity and Adaptive Mechanisms

Presentation Time: STEW 218A at 4:00-4:20

Presenting author(s): Yuchen Zhang

Mentor(s): Aaron B Bowman

7130

Diet Quality and Nutrient Biomarkers - Results from the Personalized Nutrition, Education,

Assessment, “Real” Food, and Lifestyle Support (PEARL) Study for Individuals with Autism Spectrum Disorder

Presentation Time: STEW 218A at 4:20-4:40

Presenting author(s): Grace Kathryn Adams; Adrienne M Baumann; Galit Beraja; Alec Carter Didocha

Mentor(s): Anita Aalia Panjwani; Monica Ramakrishnan

7131

Iron Nanoparticle and Radiation-Induced DNA Damage with Intracellular Calcium Quenching in Triple Negative Breast Cancer (TNBC)

Presentation Time: STEW 218A at 4:40-5:00

Presenting author(s): Dhriti Manish Laddha

Mentor(s): Matthew Louis Scarpelli; Anukrishna Radhakrishnan

7132

Cross-Species Deep Learning: Evaluating the Generalization of Human and Veterinary Segmentation Models

Presentation Time: STEW 218B at 4:00-4:20

Presenting author(s): Madison Sarah Loiselle

Mentor(s): Fiona Kolbinger; Muhammad ibtsaam Qadir

7133

Assessing heart rate dynamics following postural change in hypermobile-type Ehlers-Danlos Syndrome using wearable health monitors against POTS diagnostic criteria

Presentation Time: STEW 218B at 4:20-4:40

Presenting author(s): Monique Watson

Mentor(s): Damen Alec Wilson; Matthew Peter Ward

7134

Integrating Wearable Technology for Electrochemical Sensor based Remote Health Monitoring

Presentation Time: STEW 218B at 4:40-5:00

Presenting author(s): Surya Pratheek Turaga

Mentor(s): Jing Jiang; Wenzhuo Wu

7135

Radiomic Analysis of Collagen

Presentation Time: STEW 218C at 4:00-4:20

Presenting author(s): Sidh Jain

Mentor(s): Youngjun Lee; Rachel Kathleen Surowiec

7136

How Engagement in the Academic Setting Allows for Improvement of Grades

Presentation Time: STEW 218C at 4:20-4:40

Presenting author(s): Abigail Marie Kiracofe

Mentor(s): Catherine Jean Shukle

7137

Utilization of Hydroponics for Self Sustainable Farming and BLSS Integration for a Closed Loop

Space Habitat

Presentation Time: STEW 218C at 4:40-5:00

Presenting author(s): Mia Constance Schechter; Vijay Muthukumar; Adriana K Sanchez; Mark T Crooks

Mentor(s): D. Marshall Porterfield

CELEBRATE PURDUE'S THINKERS, CREATORS, & EXPERIMENTERS SHOWCASE

Celebrate presentations are delivered in Stewart Center, Room 206 on April 10, 2025 from 1:00-3:00pm. Names as in OURConnect.

7200

A novel self-entry restraint device for low-stress handling of mice

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Shikha Adhikari; Kelly Marie Curry

Mentor(s): Amanda K Darbyshire; Aidan Patrick Horvath

7201

Trust in the Food Supply Chain: Pre- and Post-Survey Analysis of Poisoned's Influence on Young Adults

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Shams Adigozalzade

Mentor(s): Yaohua Feng

7202

iFront Door: Enhancing Community Quality of Life (CQOL) Through Digital Presence in Versailles, Indiana

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Yixin Chen

Mentor(s): Hossein Mousazadeh

7203

How Does Prompt Engineering Influence Character Consistency and Bias Mitigation in AI-Generated Biblical Narratives?

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Satyam Vipulbhai Dave; Yana Sheoran

Mentor(s): Matthew Lanham

7204

The Relationship Between Communication and Surgery Success: Analyzing Key Speech Metrics

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Haochen Feng

Mentor(s): Denny Yu

7205

Creating a Framework to Integrate LiDAR Data from Caves into Classroom Virtual Reality

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Siya Chirag Jariwala; Henry J Lee

Mentor(s): Caue Sciascia Borlina; Anastasia Kouvaras Ostrowski; Ali Bramson

7206

Mel Spectrograms as a Robust Feature Set for Deep Learning based Automated Detection of Heart Murmur

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Saadhana Kallampalli Illam

Mentor(s): Rahul Krishnan Pathinarupothi; Durga Padmavilochanan

7207

Purdue Aerial Robotics Team - Competition Optics and Avionics

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): William Andrew Kok; Abdulmalik Abiodun Busari

Mentor(s): Niall Patrick Moloney

7208

Predictive Analytics of NBA Championship Performance Metrics: A Comprehensive 15-Year Analysis

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Srivatsa Kartikeya Kuchibhotla; Santhosh Vaddi

Mentor(s): Tiantian Qin

7209

Locating health facilities to treat Substance Abuse Disorder in Democratic Republic of Congo

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Bhavya Lakhina

Mentor(s): Pengyi Shi

7210

Comparative Sentiment Analysis of Mental Health Discourse on Social Media: A Study of Reddit and Twitter

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Lamiya Sajidbhai Laxmidhar

Mentor(s): Sammi Tayek

7211

Leveraging Shape Memory Alloys (SMAs) to Assist in Thermal Actuation of Origami Antennas

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Adina Ioana Margineantu

Mentor(s): Ran Dai

7212

Evaluating Cross-Species Generalization Capabilities of Deep Learning Models in Laparoscopic Surgical Tool Segmentation

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Farren M Martinus
Mentor(s): Fiona Kolbinger; Zheyuan Zhang

7213

Designing Healthcare Robotics: Biomimetic Prosthetic Hands for Secondary Education

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Nay Naing; Carolina Bobadilla
Mentor(s): Andres Torres; Mo Rastgaar; Nina Mahmoudian

7214

Expanding on Election Forecasting

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Thanmaya Pattanashetty; Joseph Michael Cromp
Mentor(s): Alexandria Volkening; Nour Khoudari

7215

Recycled to Revived: Giving Plastic a Second Life

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Jeeranun Poopanead
Mentor(s): Garam Kim; Do Gyun Kim

7216

A Comparative Analysis of Pure and Recycled Carbon Black on the Mechanical, Thermal, and Microstructural Properties of Mortars

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Akshay Makarand Risbud
Mentor(s): Maria mirian Velay Lizancos; Rui Bai; Aniya Edwards

7217

Co-designing Student VR Experiences for Geology Course Fieldtrips

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Hiya Samanta
Mentor(s): Anastasia Kouvaras Ostrowski; Caue Sciascia Borlina; Ali Bramson

7218

Depth Estimation Model for Autonomous Driving

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Sarah Sawhney; Taehoon Kim; Ian Tseng
Mentor(s): Shreya Ghosh

7219

BoilerSketch

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Anvit Sinha; Vivan Tiwari
Mentor(s): Andres Mauricio M Bejarano Posada; Ethan William Dickey

7220

Bridges and Machines in German Media

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Grace C Thomas

Mentor(s): Beate I Allert

7221

Leveraging Game Mechanics for STEM Education: Enhancing Engineering Skills Through the Pac-Man Robotics Challenge

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Christian R Tomao

Mentor(s): Jacqueline Linnes

7222

Recycled Plastic Tree Tube Project

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Christopher Dawkin Tanjutco; Jesse Basham; Spencer Russell Fiddler; Adan Rosales; William Emilio Perez; Jackson Thomas St Myer

Mentor(s): Devon Julia Pessler; Paul B McPherson

7223

Enhancing Lipid Signal and Coverage in Positive Mode ESI-MS using Charged Chemical Derivatives

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Jenna J Wu

Mentor(s): Syeda Nazifa Wali; Julia Laskin

7224

The Impact of Air Quality on Real Personal Income: Evidence from U.S. States (2019–2022)

Presentation Time: STEW 206 at 1:00-3:00

Presenting author(s): Yiwen Zhang

Mentor(s): Michael S Delgado

LITERATURE, LINGUISTICS, LANGUAGES, & CULTURE (LLLC) COLLOQUIUM

LLLC presentations are delivered in Stewart Center, Room 218D on April 10, 2025. Names as in OURConnect.

8000

Phonetic and Handwriting analysis

Presentation Time: STEW 218D at 9:40-10:00

Presenting author(s): Hannah Marie Kovach

Mentor(s): John D Sundquist

8001

Professor of Philosophy

Presentation Time: STEW 218D at 10:00-10:20

Presenting author(s): Jack William Fellmy

Mentor(s): Christopher Yeomans

8002

The Power of Linguistic Landscapes in Indiana's Libraries

Presentation Time: STEW 218D at 10:20-10:40

Presenting author(s): Claudia Kayleen Albrecht

Mentor(s): Lori A Czerwionka

8003

Animacy in English Object Relative Clause Structure Choice: A Comparative Study Between L1 and L2

Presentation Time: STEW 218D at 10:40-11:00

Presenting author(s): Marley Grace Mack

Mentor(s): Elaine J Francis; Yue Li

8004

Systematic Review of Humanities Pedagogy

Presentation Time: STEW 218D at 11:20-11:40

Presenting author(s): Lillian Sarah Pirotto; Haley Diane Imus

Mentor(s): Anne Victoria Wrobetz; Kirsten A Davis; Jerilyn Pia Tinio; Lori A Czerwionka

8005

Laughter in Exile: The Concept of Laughter in Chekhov

Presentation Time: STEW 218D at 11:40-12:00

Presenting author(s): Emily Doris Gervais

Mentor(s): Olga Lyanda-Geller

8006

AI-Powered Tutoring with Retrieval-Augmented Chatbots: Enhancing Interactive Learning in Intercultural Communication

Presentation Time: STEW 218D at 12:00-12:20

Presenting author(s): Mohamed Alaa Moham Ahmed

Mentor(s): Hyesun Choung

8007

Rethinking Control Groups in L2 Pronunciation Research: Insights from a Systematic Review

Presentation Time: STEW 218D at 12:20-12:40

Presenting author(s): Paige Katherine Doyle; Adam Wesley Buehrer; Hannah Marie Marlowe

Mentor(s): Daniel J Olson; Yiyang Jiang

8008

Perspectives on Mental Health and Society in the Novels of Fyodor Dostoevsky

Presentation Time: STEW 218D at 12:40-1:00

Presenting author(s): Luke A Diehl

Mentor(s): Amina Gabrielov

8009

From Nationalism to Moral Responsibility: The Redefinition of German Patriotism in Postwar Literature and Film

Presentation Time: STEW 218D at 1:00-1:20

Presenting author(s): Kerri Jayne Easton

Mentor(s): Beate I Allert

8010

Physics of Speech Perception: Cross-Linguistic Variations in Vowel Frequency Discrimination

Presentation Time: STEW 218D at 1:20-1:40

Presenting author(s): Aastha Rasesh Patel

Mentor(s): Linda E Haynes

8011

Castles in the Sky: A Comparison of Constructed and Natural Paradise in Dostoevsky and Utopian Literature

Presentation Time: STEW 218D at 1:40-2:00

Presenting author(s): Tessa Clarabelle Stahly

Mentor(s): Amina Gabrielov

8012

Spanish Pragmatics Development during Study Abroad: A Review

Presentation Time: STEW 218D at 2:00-2:20

Presenting author(s): Madilen Helene Gesse; Adler Olivia Kolb

Mentor(s): Lori A Czerwionka

8013

Semantic Interpretation in Humans and Large Language Models of Quantified Statements

Presentation Time: STEW 218D at 2:20-2:40

Presenting author(s): Lauren Mackenzie Matthews

Mentor(s): Shaohua Fang

8014

"Holy Jokesters" in Russian Culture and Literature: Then and Now

Presentation Time: STEW 218D at 2:40-3:00

Presenting author(s): Davyd Revenko

Mentor(s): Olga Lyanda-Geller

8015

AI as a Creative Partner: Exploring the Effects of Communication Modality and Chatbot Persona on Human Creativity

Presentation Time: STEW 218D at 3:00-3:20

Presenting author(s): saumya verma

Mentor(s): Hyesun Choung

8016

The Intersection of Motivation, Community, and Happiness

Presentation Time: STEW 218D at 3:20-3:40

Presenting author(s): Mia An-Mei Schmetter

Mentor(s): Linda E Haynes

VIRTUAL PRESENTATIONS

Presentations available on the Spring Conference website April 8-11, 2025.

Posters sorted by last name of first author.

9000

Modular Soft Assemblies with Independent Cells

Virtual Presentation from April 8-11

Presenting author(s): Eshaan Agarwal

Mentor(s): Adrian Buganza Tepole

9001

Finding Meaning in Life

Virtual Presentation from April 8-11

Presenting author(s): Monica Bagai

Mentor(s): Saanvi Singh

9002

Matrix Multiplier Engine

Virtual Presentation from April 8-11

Presenting author(s): Pranav Bantval; Arnav Pravinkuma Namdev; Advay Welling; Jai Anand Keskar;

Minh Huy Nguyen

Mentor(s): Malcolm Lloyd Seib McClymont; Miguel Isrrael Teran

9003

Texture and Mechanical Properties of Human Cortical Bone: Influence of Bound Water Composition

Virtual Presentation from April 8-11

Presenting author(s): Christopher Richard Chin

Mentor(s): Youngjun Lee; Rachel Kathleen Surowiec

9004

The Geopolitical Struggle for Space Governance and Safety Zones

Virtual Presentation from April 8-11

Presenting author(s): John Lance Clark

Mentor(s): Mark Janis

9005

Evaluating Vision Transformer Architectures: Accuracy, Efficiency, and Resilience in Image Classification

Virtual Presentation from April 8-11

Presenting author(s): Luisa Cruz Miotto; Qiuyang Huang; Heidi Teng

Mentor(s): Le Mao; Zihao Ye

9006

ABC-PV: miniaturized agrivoltaic model for simulating full-sized installations

Virtual Presentation from April 8-11

Presenting author(s): Akash Narasimha Darbha; Henry George DeRyke

Mentor(s): Jabir Bin Jahangir

9007

Computational Arithmetic Logic CALC (CALC)

Virtual Presentation from April 8-11

Presenting author(s): Matthew Du; Jeet Chandresh Jagad; Amogh Shivanand Havanagi; Lucas Michael Mallen; Nicholas Zhang

Mentor(s): Malcolm Lloyd Seib McClymont; Miguel Isrrael Teran

9008

Digital Stopwatch

Virtual Presentation from April 8-11

Presenting author(s): Genci Duraku; Arjun Julius Siderys; Jack Spenser Zimmerman; Arina Harlanovich; Noah Everett Desserich; Austin Salomon Guerrero

Mentor(s): Malcolm Lloyd Seib McClymont; Miguel Isrrael Teran

9009

Improving Hydroxyl Terminated Poly Butadiene Combustion Characteristics with Boron-Zirconium and Boron-Titanium

Virtual Presentation from April 8-11

Presenting author(s): Aron Pranay Dutia

Mentor(s): Dhruval Natubhai Patel

9010

Biodiversity Changes Due to Ecosystem Disturbance and its Impacts on Mesocarnivore Presence in Indiana

Virtual Presentation from April 8-11

Presenting author(s): Alexandra Grace Early

Mentor(s): Kristen Marie Bellisario

9011

SoCET-Test Engineering

Virtual Presentation from April 8-11

Presenting author(s): Seongwon Hong; Raghav Srivaths; Benjamin Eunsang Ryu; Henan Wang

Mentor(s): Abinands Ramshanker; Mark Johnson

9012

UVM-Based Verification of RISC-V Multicore Design

Virtual Presentation from April 8-11

Presenting author(s): Adam Jacob Keith; Dev M Patel

Mentor(s): Vishnu Chaithanya Lagudu

9013

VIP AERO UAV

Virtual Presentation from April 8-11

Presenting author(s): Huan Yi Kuo; Po-Chin Yang

Mentor(s): Curtis Earl Marshall

9014

Object Interaction with MuJoCo Simulation

Virtual Presentation from April 8-11

Presenting author(s): Juneseok Kwon

Mentor(s): Yu She; Jaeeun Kim

9015

Design and Optimization of a Rapid-Fire Projectile Launching System for Combat Robotics

Virtual Presentation from April 8-11

Presenting author(s): Kai-Neng Lin

Mentor(s): Zijian He

9016

Feel and Control: Improving Damping in Tennis Rackets

Virtual Presentation from April 8-11

Presenting author(s): Andrew Hanchen Liu; Lucas David Gorretta

Mentor(s): Adeline Nora Ripberger; Jan-Anders E Mansson

9017

VIP-AERO UVA

Virtual Presentation from April 8-11

Presenting author(s): Huijie Loy; Po-Chin Yang

Mentor(s): Curtis Earl Marshall

9018

Assessing the Accuracy of a Real-Time Mental Workload Load-Based Measurement Tool: A Pilot Study

Virtual Presentation from April 8-11

Presenting author(s): Jasmine Alyssa Luke

Mentor(s): Denny Yu; William Christian Zouzas

9019

Changes in rural healthcare provider vaccine opinions after the COVID-19 pandemic: A mixed methods study

Virtual Presentation from April 8-11

Presenting author(s): Alexander McQuade

Mentor(s): Soo Jung Jo

9020

UVM Verification of AHB_MUX

Virtual Presentation from April 8-11

Presenting author(s): Yash Mishra

Mentor(s): Mark Johnson

9021

Mushrooms to Mars: Mycoponics™ for Diversified Product Streams in Closed-Loop Environments

Virtual Presentation from April 8-11

Presenting author(s): Simone Xin Moulton; Adriana K Sanchez

Mentor(s): D. Marshall Porterfield

9022

ASIC Implementation of a Digital Audio Synthesizer

Virtual Presentation from April 8-11

Presenting author(s): Nicha Muninnimit; Matthew S Pung; Vidyut Karur Suresh; Nhu Thanh Quynh Ta; Peter Alexei Kaya Gretchikha

Mentor(s): Malcolm Lloyd Seib McClymont; Mark Johnson

9023

Custom Motion Controller with IMU for Robotic Arm Applications

Virtual Presentation from April 8-11

Presenting author(s): Xin Jue B. Bhaisajay Ng

Mentor(s): Zijian He

9024

Innovative Flight Training: Balancing Safety and Efficiency in Response to a Pilot Shortage

Virtual Presentation from April 8-11

Presenting author(s): Olivia Olson

Mentor(s): Michael Wayne Suckow

9025

Enhancing Armor Detection in Autonomous Robotics: Improving Color Classification, Contour Fitting, and Real-Time Processing

Virtual Presentation from April 8-11

Presenting author(s): Evan Brent Osborne; Jayant Meenakshi Venkatesan

Mentor(s): Samitha Ranasinghe

9026

AFTx07 External SRAM Connector Board

Virtual Presentation from April 8-11

Presenting author(s): Brady Owen Philhower; Alexander David Forrest

Mentor(s): Matthew A Swabey

9027

UVM verification module for stack LIFO module

Virtual Presentation from April 8-11

Presenting author(s): Santiago Xavier Pineiros Gavilanes

Mentor(s): Vishnu Chaithanya Lagudu

9028

Building Resilience Through Transparency: The Critical Role of Information Access in Public Health Policy

Virtual Presentation from April 8-11

Presenting author(s): Tejasi Raghuprasad

Mentor(s): Bethany McGowan

9029

Caravel Chip (STARS Chiplet)

Virtual Presentation from April 8-11

Presenting author(s): Aryan Ram Babu; Sanjay Akam

Mentor(s): Vishnu Chaithanya Lagudu

9030

Refinement of Acrylic Cages for Seizure Research

Virtual Presentation from April 8-11

Presenting author(s): Willard Gabriel Rash Cuevas; Samir Niradbhai Patel; Meghana Sunil Kumar; Jaskarandeep Kaur

Mentor(s): Ken Yoshida; Mahdi Ghanati

9031

Enhancing the Stability of Conductive Bioelectrodes Using Advanced Nanomaterials

Virtual Presentation from April 8-11

Presenting author(s): Ayden Matthew Rosencranz; Charlita Sinmak; Antonio C De Oliveira Segura

Mentor(s): Ken Yoshida; Nathaniel Liam Lazorchak; Awadh Mubarak M Al Hawwash; Babak Anasori

9032

AXI UVM

Virtual Presentation from April 8-11

Presenting author(s): Dogyu Ryu; Moeyad OmerAbdalla Omer

Mentor(s): Vishnu Chaithanya Lagudu

9033

Exploring Student Perceptions of Virtual Reality in Higher Education: A Comparative Study with Traditional Lecture-Based Learning

Virtual Presentation from April 8-11

Presenting author(s): Aishani Sakalabhaktula

Mentor(s): Lisa B Bosman

9034

Micro-Nano-Ordered LSMO-Au VAN Growth for Chemical Sensors

Virtual Presentation from April 8-11

Presenting author(s): Allison Nobuko Scher

Mentor(s): Haiyan Wang

9035

A survey of inpatient nutrition care for people with chronic kidney disease

Virtual Presentation from April 8-11

Presenting author(s): Kara Olivia Shields

Mentor(s): Brandon M Kistler

9036

SLIP Project

Virtual Presentation from April 8-11

Presenting author(s): Jiaming Situ; Seungho Lee; Khanh Nam Nguyen; Taviish Bothra; Arnav Dushyant Choudhry
Mentor(s): Cole Aaron Nelson

9037

Origami-Inspired climber for multidirectional Robotic Locomotion

Virtual Presentation from April 8-11

Presenting author(s): Eddie So

Mentor(s): Ran Dai

9038

Reusable Packaging Research

Virtual Presentation from April 8-11

Presenting author(s): Savelii Vitalievich Spiridov

Mentor(s): Wooyong Jo

9039

Autonomous DQN Drone

Virtual Presentation from April 8-11

Presenting author(s): Shishir Tumma; Aarav B Patel

Mentor(s): Shreya Ghosh

9040

Derivatization with La3+ facilitates structural characterization of isomeric sugars using mass spectrometry

Virtual Presentation from April 8-11

Presenting author(s): Jorge Vilchez

Mentor(s): Xindi Tang; Julia Laskin

9041

Explainable AI for Judicial Data

Virtual Presentation from April 8-11

Presenting author(s): Tri Quang Vo

Mentor(s): Pengyi Shi

9042

Robot Arm

Virtual Presentation from April 8-11

Presenting author(s): Qinjia Xu

Mentor(s): Abolfazl Hashemi; Zijian He

9043

Creating a Light Sensor Using a Raspberry Pi

Virtual Presentation from April 8-11

Presenting author(s): Helen Yi; Manuela Cardona Meneses

Mentor(s): Stewart F Bauserman; Saanvi Singh

Presentation Time: STEW at
Presenting author(s):
Mentor(s):

Presentation Time: STEW at
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