

Fall 2024 Undergraduate Research Symposium: *Engineering*

This list is inclusive of all presentations where at least one student or at least one mentor is linked to the specified division. Students' and Mentors' names are based on information submitted in conference applications, except for the following:

- Purdue students' divisions are based on institutional academic data. (Visiting students do not have a division.)
- Purdue mentors' divisions are based on their primary appointment at Purdue.
- Name spellings appear as submitted in OURConnect. Names may be edited (for future reporting) via "my profile" in OURConnect.

Student Role Notation: †Presenting Author, ‡ Contributing Author, *Acknowledgment

Presentation	Students	Mentors
Poster #1003 presented 11/19 @ 9:00-10:00am	Niklas Eric Anderson† (Engineering)	Ryan B Wagner (Engineering)
Poster #1006 presented 11/19 @ 9:00-10:00am	Alex Jameson Appiah† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1011 presented 11/19 @ 9:00-10:00am	Cristian Marcos Barinaga† (Engineering JMHC)	Juan Camilo Mesa Agudelo (Engineering)
Poster #1014 presented 11/19 @ 9:00-10:00am	Cole Emerson Blochert† (Engineering) Elian David Coyotl Garcia† (Engineering) Chanwoo Lim† (Engineering) Cassius Samuel Sampson† (Engineering) Ria Sinha† (Engineering)	Jesus Adrian Meza Galvan (Engineering) Anthony G Cofer (Engineering) Steven M Pugia (Engineering) Alina Alexeenko (Engineering)
Poster #1016 presented 11/19 @ 9:00-10:00am	Catherine Therese Nicole Bradley† (Engineering JMHC) Gianna Marie Arnone‡ (Engineering)	Diane Collard (Engineering)
Poster #1017 presented 11/19 @ 9:00-10:00am	Zachary V Bryant† (Engineering JMHC)	Riley Bradley Barta (Engineering) Yash Shantilal Parmar (Engineering)
Poster #1020 presented 11/19 @ 9:00-10:00am	Ethan Joseph Chace† (Engineering) Yuet Ching Jolie Lai† (Engineering) Kailey Christina Dvorak† (Engineering) Marvel Jiaxiang Zheng† (Engineering)	Niall Patrick Moloney (Engineering)
Poster #1021 presented 11/19 @ 9:00-10:00am	Christopher Timothy Chan† (Engineering) Justin Song† (Engineering) Niril Jestus† (Engineering) Jacob Adam Clark† (Engineering) Sabrina Louise Gray† (Engineering) Mihika Sharma† (Science)	David Michael Barbarash (Agriculture)
Poster #1022 presented 11/19 @ 9:00-10:00am	Shaan Jitesh Chanchani† (Engineering) Aryan Amol Khanolkar† (Science JMHC) Claire Seol Kim† (Engineering) Joshua C Mansky† (Engineering) Medhashree Parhy† (Science) Armaan Arshad Sayyad† (Science) Parth Thakre† (Science)	Amy R Reibman (Engineering) Haoyu Chen (Engineering)
Poster #1024 presented 11/19 @ 9:00-10:00am	Aditya Chattopadhyay† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1025 presented 11/19 @ 9:00-10:00am	Chengyu Chiu† (Engineering) Pin-Chen Su† (Engineering) Yoshiki Takeuchi† (Engineering) Qiming Chai† (Engineering)	Peter Bermel (Engineering) Saeed Mohammadi (Engineering) Frank Huang (Engineering)

Presentation	Students	Mentors
Poster #1030 presented 11/19 @ 9:00-10:00am	Deborah Mercylin David† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1031 presented 11/19 @ 9:00-10:00am	Joshua Armstrong Davis† (Engineering JMHC)	Thomas H Siegmund (Engineering)
Poster #1033 presented 11/19 @ 9:00-10:00am	Rhea Dutta† (Engineering JMHC)	Lisa B Bosman (Polytechnic)
Poster #1035 presented 11/19 @ 9:00-10:00am	Deniz Eksioglu† (Engineering JMHC)	Hyowon Lee (Engineering) Jae Young Park (Engineering)
Poster #1038 presented 11/19 @ 9:00-10:00am	Daniyal Fazal† (Engineering) Harmon Howse† (DSB JMHC) Nicholas Marshall Andry† (Science) Jayden Chun-Hin Chow† (DSB JMHC) Oliver J Wang† (Polytechnic)	Santiago Torres Arias (Engineering)
Poster #1046 presented 11/19 @ 9:00-10:00am	Audrey Jean Heckel† (Engineering JMHC)	Andrew DeWoody (Agriculture)
Poster #1047 presented 11/19 @ 9:00-10:00am	Amanda Joan Holmes† (Science) Jacob Harlow Ehman‡ (Engineering)	Ali Bramson (Science)
Poster #1048 presented 11/19 @ 9:00-10:00am	Jacob Charles Humphrey† (Engineering) Dilay Aygun† (Engineering) Huan Wen Mao† (Engineering) Rakhmatillokhon Avazkhon u Abdubaev† (Engineering) Hsun-Ti Chiang† (Engineering) Charlita Sinmak† (Engineering) Hao Tian Pang† (Engineering) Ryan Prado Bailey† (Engineering JMHC)	Zhihong Chen (Centers & Institutes) Joerg Appenzeller (Engineering)
Poster #1052 presented 11/19 @ 9:00-10:00am	Christina Joslin† (Science Graduate JMHC)	Nadia Gkritza (Engineering) Bruno cesar Krause moras (Engineering)
Poster #1054 presented 11/19 @ 9:00-10:00am	Daniel Ethan Kelley† (Engineering)	Craig Goergen (Engineering) Cortland Hannah Johns (Engineering)
Poster #1055 presented 11/19 @ 9:00-10:00am	Puthimet Kitjaruwankul† (Engineering) Chewon Yu Park† (Engineering) Shrienidhi Gopalakrishnan† (Engineering)	Mark Johnson (Engineering) Cole Aaron Nelson (Engineering)
Poster #1056 presented 11/19 @ 9:00-10:00am	Koon Joseph Klieopatinon† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1057 presented 11/19 @ 9:00-10:00am	Ashwin B Kokate† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1061 presented 11/19 @ 9:00-10:00am	Michael Li† (Engineering JMHC) Yash Singh† (Engineering)	Cole Aaron Nelson (Engineering) Mark Johnson (Engineering)
Poster #1062 presented 11/19 @ 9:00-10:00am	Jessica Serena Jiayue Li† (Engineering JMHC) Jingyu Xiao* (Engineeing JMHC)	Jinha Jung (Engineering)
Poster #1064 presented 11/19 @ 9:00-10:00am	Santino Basilio Macaggi† (Engineering)	Patrick James Cavanaugh (Engineering) Jan-Anders E Mansson (Engineering)
Poster #1065 presented 11/19 @ 9:00-10:00am	Antonios Maniatis† (Engineering) Rongbo Hu† (Engineering) Leo Pearson Malachowski† (Engineering JMHC)	Timothy Francis Hein (Engineering) Conor James Green (Engineering) Mark Johnson (Engineering)
Poster #1066 presented 11/19 @ 9:00-10:00am	Kayla Elizabeth Manley† (Engineering) Tanvir Kaur† (Engineering) Madison Paige Ward† (Engineering) Nishtha Singh† (Engineering)	Riley Bradley Barta (Engineering)

Presentation	Students	Mentors
Poster #1069 presented 11/19 @ 9:00-10:00am	Vinay Sai Meda† (Science) Tanishaa Shah† (Engineering) Samitha Ranasinghe† (Engineering) Tiana Yi Jen Lin† (Engineering) Samantha Sudhoff† (Science)	Yung-Hsiang Lu (Engineering) Yeon Ji Yun (Liberal Arts)
Poster #1070 presented 11/19 @ 9:00-10:00am	Grant Joseph Miller† (Engineering JMHC) Joshua Decker Buss* (Engineering JMHC)	Yubo Song (Engineering)
Poster #1071 presented 11/19 @ 9:00-10:00am	Andrew Evan Modin† (Engineering)	Shubhanshu Agarwal (Engineering) Rakesh Agrawal (Engineering)
Poster #1074 presented 11/19 @ 9:00-10:00am	Ji Bing Ni† (Science)	Junfei Li (Engineering)
Poster #1080 presented 11/19 @ 9:00-10:00am	Maria Pundik† (Engineering JMHC) Chelsea Tinsley* Kendal ZaiSi Tinsley*	Clark C Addis (Engineering) Andres Arrieta Diaz (Engineering)
Poster #1081 presented 11/19 @ 9:00-10:00am	Sarah Pushparaj† (Science JMHC)	Wenzhuo Wu (Engineering)
Poster #1083 presented 11/19 @ 9:00-10:00am	Lea Nikole Quiroa Lopez† Juan Pablo Melgar Feregrino†	Garam Kim (Polytechnic) Eduardo Barocio Vaca (Engineering)
Poster #1084 presented 11/19 @ 9:00-10:00am	Felipe Ramirez Franco† (Universidad Nacional de Colombia) Alen Santiago Lizarazo Osorio* (Universidad de La Sabana, Columbia) Yovani Garcia Munera* (Universidad Nacional de Colombia)	Vijay Gupta (Engineering)
Poster #1085 presented 11/19 @ 9:00-10:00am	Architha Rao† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1087 presented 11/19 @ 9:00-10:00am	Alejandro Sebastian Sanchez Garza† Cameron J Hartsfield† (Engineering) Luis Carlos Nino Cabello†	Eduardo Barocio Vaca (Engineering)
Poster #1088 presented 11/19 @ 9:00-10:00am	Maharsh Bhavesh Shah† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1090 presented 11/19 @ 9:00-10:00am	Devin Singh† (Engineering) Vidisha Singhal† (Engineering) Michael Jeffery Dick† (Engineering) Luca Renato Simon† (Engineering) Andrew Michael Lykken† (Engineering)	Cole Aaron Nelson (Engineering) Mark Johnson (Engineering) Jacob Chappell (Engineering) Conor James Green (Engineering)
Poster #1091 presented 11/19 @ 9:00-10:00am	Nora Jacques Siri† (Engineering) Andrew Earl Medlyn† (Engineering) Joseph Talon Vesco† (Engineering) Muhammad Rifqi Priatama Sambodo† (Engineering) Albertus Magnus Ethanael Nusawardhana* (Engineering) Dylan Richard McCool* (Engineering) Brandon William Davis* (Engineering) Nathan Jaekun Lee* (Engineering)	Niall Patrick Moloney (Engineering)
Poster #1092 presented 11/19 @ 9:00-10:00am	Lawrence Folsom Smith† (Engineering) Hyeonwoo Heo† (Engineering) Joshua Peter LeBlanc† (Engineering) Nathanael Aou† (Science) Rohan Chandra Mudugere‡ (Engineering) Kyle John Massie‡ (Engineering)	James C Davis (Engineering)
Poster #1093 presented 11/19 @ 9:00-10:00am	Nathaniel A Smith† (Engineering)	Dali Lai (Engineering)

Presentation	Students	Mentors
Poster #1095 presented 11/19 @ 9:00-10:00am	Patrick Randall Spillman† (Engineering JMHC) David Wesley Thoe† (Engineering) Aditya Verma† (Engineering) Richard Ye† (Engineering) Samuel Elijah Nadol† (Engineering)	Shreya Ghosh (Engineering)
Poster #1096 presented 11/19 @ 9:00-10:00am	Nolan Cai Tai† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1097 presented 11/19 @ 9:00-10:00am	Austin Robert Tanabe† (Agriculture Engineering JMHC) Daniel Russell Cline† (Agriculture Engineering) Collin Jayson Kao* (Agriculture Engineering)	Kari L Clase (Engineering) Aaron J Gin (Purdue University) Amanda K Limiac (Engineering)
Poster #1098 presented 11/19 @ 9:00-10:00am	Eduard Filip Tanase† (Engineering JMHC) Aiden Hughes Sexton† (Engineering) Alexander Thomas Aylward† (Engineering JMHC) Cecilie Zhang† (Engineering) Alexander Raffaele Ciccarelli† (Engineering) Khanh Nam Nguyen† (Engineering)	Cole Aaron Nelson (Engineering) Mark Johnson (Engineering)
Poster #1099 presented 11/19 @ 9:00-10:00am	Benjamin Anderson Tofil† (Engineering) Gangsan Lee† (Engineering) Brian Martin Dodd† (Engineering) Neha Saleha† (Engineering) Alexandre Chan Tome† (Engineering) Cheong Eun Kim† (Engineering) Sang Soo Ha† (Engineering)	Feichi Huang (Engineering)
Poster #1106 presented 11/19 @ 9:00-10:00am	William Samuel Walker† (Engineering JMHC) Abiram S Gurijala‡ (Engineering)	Nachiket Vatkar (Engineering) Wenzhuo Wu (Engineering)
Poster #1108 presented 11/19 @ 9:00-10:00am	Madison Paige Ward† (Engineering)	Riley Bradley Barta (Engineering)
Poster #1111 presented 11/19 @ 9:00-10:00am	Renzhi Yongtian† (Engineering) Rauf Emre Erkiletlioglu‡ (Engineering) Tei Okamoto* (Engineering) Weijing Sebastian Chen* (Engineering) Anika Bajpai* (Engineering) Aditya S Hebbani* (Engineering)	Mark Johnson (Engineering) Matthew A Swabey (Engineering)
Poster #1112 presented 11/19 @ 9:00-10:00am	Radman Tor Zarbock† (Engineering JMHC)	Philippe Pastor (Institut Supérieur de l'Aéronautique et de l'Espace)
Poster #1113 presented 11/19 @ 9:00-10:00am	Quqi Zhang† (Engineering)	Tanner James Ballance (Agriculture)
Poster #1114 presented 11/19 @ 9:00-10:00am	Daniel Felipe Zuniga Hurtado† (Universidad Nacional de Colombia) Camilo Delgado Burbano‡ (Pontificia Universidad Javeriana Bogotá)	Young-Jun Son (Engineering)

Presentation	Students	Mentors
Poster #1201 presented 11/19 @ 10:30-11:30am	Colby Ben Acton† (Engineering) Gaetano Antonio Iannotta† (Engineering) Aditi Anand† (Engineering) Branton Ling‡ (Science) Evan Alexander Zhang‡ (Engineering) Gaurish Lakhnpal‡ (Science) Michael Suo‡ (Engineering) Apostolos Adam Cavounis‡ (Engineering) Purav Matlia‡ (Science Graduate) Rohini Pillai‡ (Science) Ruhaan Batta‡ (Engineering) Samarth Prashanth‡ (Engineering) Shih-Yao Sun‡ (Engineering)	Qiang Qiu (Engineering) Wei Zakharov (Libraries) Zichen Miao (Engineering)
Poster #1203 presented 11/19 @ 10:30-11:30am	Tina Atmani† (Agriculture Engineering) Lana Malek† (Agriculture Engineering) Xiuyu Shi† (Agriculture Engineering)	Kari L Clase (Engineering) Ruba Ahmad Qwai Alajlouni (Agriculture) Amanda K Limiac (Engineering)
Poster #1204 presented 11/19 @ 10:30-11:30am	Olivia Eugenia Avalos Villar† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1206 presented 11/19 @ 10:30-11:30am	Alexis Lucille Ador Bernal† (Agriculture Engineering) Manya Devang Kadiwala† (Agriculture)	Kari L Clase (Engineering) Julia Ann Simler (Agriculture) Amanda K Limiac (Engineering)
Poster #1210 presented 11/19 @ 10:30-11:30am	Ryan L Bottini† (Engineering) Manila Kunwar‡ (Engineering)	Nien-hwa L Wang (Engineering) Clayton C Gentilcore (Engineering)
Poster #1211 presented 11/19 @ 10:30-11:30am	Pranav Boyapati† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1213 presented 11/19 @ 10:30-11:30am	Bernardo Cabral Alves da Costa† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1220 presented 11/19 @ 10:30-11:30am	Kevin Ming Chang† (Engineering) Aditya Krishnan Sivathanu† (Engineering) Samyukta Balaji* (Engineering)	James G Ogg (Science) Aaron C Ault (Engineering)
Poster #1221 presented 11/19 @ 10:30-11:30am	Ojas Chaturvedi† (Science JMHC) Kayshav Bhardwaj† (Science) Vincent Wentao Zhao† (Science) Max Yu Zhen Chen‡ (Science) Luke Jaehyeon Choi* (Science JMHC) Parv Kumar* (Engineering) Minh Le Vu* (Science) Minh Binh Tran* (Science) Tri Quang Vo* (Science) Pranesh S Velmurugan* (Science) Andrew J Achkar* (Engineering) Bryan Christopher Yoo* (Science)	Yung-Hsiang Lu (Engineering) Yeon Ji Yun (Liberal Arts)
Poster #1222 presented 11/19 @ 10:30-11:30am	Yi-Huan Chen† (Engineering) Ching-Hsiang Huang† (Engineering)	Shreya Ghosh (Engineering)
Poster #1223 presented 11/19 @ 10:30-11:30am	Daniel Choi† (Engineering) Hassan Al-alawi† (Engineering) Hunter A Mccollough† (Engineering) Abhiram Saridena† (Engineering) Viet Khoi Pham Khac† (Engineering) Akhilesh Prasad† Abhijay Achukola† (Engineering) Kshitij Miraj Shah† (Engineering) Phone Myat Paing† (Engineering) Jerry Ronald Chen† (Engineering) Justin Yasuumi† (Engineering) Charles Spencer Bowles† (Engineering JMHC)	Sooraj Chetput Venkataraghavan (Engineering) Mark Johnson (Engineering)

Student Role Notation: †Presenting Author, ‡Contributing Author, *Acknowledgment

Presentation	Students	Mentors
Poster #1224 presented 11/19 @ 10:30-11:30am	Easton Ludeman Clark† (Engineering) Aidan P Pender† (Engineering) Anshuman Samanta† (Engineering)	Niall Patrick Moloney (Engineering)
Poster #1225 presented 11/19 @ 10:30-11:30am	William Rowan Cunningham† (Engineering) Kathy Niu† (Engineering JMHC)	Cole Aaron Nelson (Engineering) Mark Johnson (Engineering)
Poster #1228 presented 11/19 @ 10:30-11:30am	Bianca de Paula Macedo† (Universidade Federal do Rio de Janeiro)	Karthik Sankaranarayanan (Engineering) Olga Costa Alves Souza (Interdisciplinary & Special Programs)
Poster #1230 presented 11/19 @ 10:30-11:30am	Jacob Harlow Ehman† (Engineering) Amanda Joan Holmes‡ (Science)	Ali Bramson (Science)
Poster #1232 presented 11/19 @ 10:30-11:30am	Maximillian Francis Farrell† (DSB) Arnav Naval† (Engineering) Matthew Alvarez Hackett† (Engineering) Shreya Laxmi Nagendra† (Science) Genna Nicole Yavaraski† (Science) Jason Dumauual Lyst† (Engineering) Taneek Malhotra† (Science) Parth Kapila† (Polytechnic) Aniruddh Srivastava† (Science)	Matthew A Swabey (Engineering) Jaeun Kim (Engineering)
Poster #1234 presented 11/19 @ 10:30-11:30am	Ethan Phillip Foster† (Engineering)	Cortland Hannah Johns (Engineering) Craig Goergen (Engineering)
Poster #1236 presented 11/19 @ 10:30-11:30am	Alaina Rose Gartner† (Agriculture Engineering)	Leonor Maria de Fatima Chagas Boavida (Agriculture)
Poster #1237 presented 11/19 @ 10:30-11:30am	Aaditya Gaur† (Engineering) Zay Linn Htet† (Engineering) Christina Zhang† (Science JMHC)	Zijian He (Engineering)
Poster #1238 presented 11/19 @ 10:30-11:30am	Angelica Sofia Gonzalez-Ng† (Engineering) Maria Macias‡ (Engineering) Tatiana Zuluaga Vargas* (Universidad Nacional de Colombia)	Madison Mckensi Howard (Engineering) Luis Solorio (Engineering)
Poster #1239 presented 11/19 @ 10:30-11:30am	Gabriel Goodwin† (Engineering JMHC)	David D Nolte (Science)
Poster #1241 presented 11/19 @ 10:30-11:30am	Bobby Gu† (Engineering) Alexander Jonathan Collins† (DSB) Neal Noel Lobo† (Engineering) Pratham Patil† (Engineering) Dean Michael La Point† (DSB) Jeet Brahmhatt† (Engineering)	Shreya Ghosh (Engineering)
Poster #1244 presented 11/19 @ 10:30-11:30am	Priyam Gupta† (Science JMHC)	Jenna L Wise DiVincenzo (Engineering)
Poster #1246 presented 11/19 @ 10:30-11:30am	Augustus George Hayes† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1247 presented 11/19 @ 10:30-11:30am	Aditya S Hebbani† (Engineering) Rauf Emre Erkiletlioglu‡ (Engineering) Tei Okamoto* (Engineering) Weijing Sebastian Chen* (Engineering) Anika Bajpai* (Engineering) Renzhi Yongtian* (Engineering)	Mark Johnson (Engineering) Matthew A Swabey (Engineering)

Presentation	Students	Mentors
Poster #1249 presented 11/19 @ 10:30-11:30am	Brogan John-Michael Holt [†] (DSB JMHC) Jayee Goh [†] (Engineering) Kaylie Emerson Virkust [†] (Engineering) Shashank Varamballi [†] (Engineering) Patricia Ewa Leoniuk [†] (Engineering) Olivia Chen [†] (Engineering) Gowri Ravikumar Bajagurt [†] (Engineering) Saanvi Mahesh [†] (Engineering) Marina Mercedes San Martin Rossano [†] (Engineering) Pradyumn Malik [†] (Engineering) Shrikar Hippargi [†] (Engineering) Isaac Yan Shek Cheng [†] (Engineering) Jijnasu Prakash Rout [‡] (Engineering) Atandriela Chowdhury [‡] (Engineering) Ashton Anthony Price [‡] (DSB) Joseph Chelliah [‡] (DSB) James Burrell Hewette [‡] (Engineering)	John W Sheffield (Polytechnic)
Poster #1250 presented 11/19 @ 10:30-11:30am	Cho-Yi Hsieh [†] (Engineering) Ho Jun Lee [†] (Engineering) Cecilie Reingaard Wiuff [†] (Engineering) Aidan Iachini Broy [†] (Engineering) Jou-Ting Lai [†] (Engineering)	Peter Bermel (Engineering) Zhiyuan Wei Saeed Mohammadi (Engineering)
Poster #1252 presented 11/19 @ 10:30-11:30am	Ritwik Suresh Jayaraman [†] (Science) Aman Katyal [†] (Engineering) Azain Khalid [†] (Science) Chiraag Shashi Kumar [†] (Engineering)	Andres Felipe Hoyos Moreno (Engineering) Samuel Labi (Engineering)
Poster #1254 presented 11/19 @ 10:30-11:30am	Tanvir Kaur [†] (Engineering)	Riley Bradley Barta (Engineering) Kyle Allen Shepard (Engineering)
Poster #1257 presented 11/19 @ 10:30-11:30am	Junyoung Kim [†] (Engineering) Christian A Choi [†] (Engineering)	Samuel Labi (Engineering) Andres Felipe Hoyos Moreno (Engineering)
Poster #1259 presented 11/19 @ 10:30-11:30am	Alexander Kmetko [†] (Engineering) Jonah P Lovitz [†] (Engineering) Joseph John Forster [†] (Engineering) Chase Nicholas Hamdan [†] (Engineering)	James Michael Goppert (Engineering)
Poster #1260 presented 11/19 @ 10:30-11:30am	Kylie M Lachapelle [†] (Agriculture JMHC) Saheli Minesh Parikh [†] (Education JMHC) Aditya Ujwal [‡] (Science JMHC) Simon Paul Mitchell [‡] (Engineering JMHC) Megan E Power [‡] (DSB JMHC) Nithin Krishna Veeramasuneni [‡] (Polytechnic JMHC)	Kathryn Frances Dilworth (JMHC)
Poster #1262 presented 11/19 @ 10:30-11:30am	Gabrielle Elizabeth Layman [†] (Engineering JMHC) Shlok Rajesh Kulkarni [†] (Engineering JMHC) Zachary Traina [†] (HHS)	Jeffrey M Haddad (HHS)
Poster #1264 presented 11/19 @ 10:30-11:30am	Elliana Rose Lemberis [†] (Agriculture Engineering) Nadia Helen Whalen [†] (Agriculture Engineering)	Somali Chaterji (Engineering)
Poster #1267 presented 11/19 @ 10:30-11:30am	Nachiket Magesh [†] (Engineering JMHC)	Qi Dong (Science) Abhirup Sen (Science)
Poster #1268 presented 11/19 @ 10:30-11:30am	Kayla Elizabeth Manley [†] (Engineering) Tanvir Kaur* (Engineering) Nishtha Singh* (Engineering) Madison Paige Ward* (Engineering)	Riley Bradley Barta (Engineering) Kyle Allen Shepard (Engineering) Ganesh Brammanayagam venkatesan (Engineering)

Student Role Notation: [†]Presenting Author, [‡]Contributing Author, *Acknowledgment

Presentation	Students	Mentors
Poster #1270 presented 11/19 @ 10:30-11:30am	Ivan Mateo Meneses Rivera† (Universidad Nacional de Colombia)	Aishwarya Vijayan Menon (Engineering) Julie C Liu (Engineering)
Poster #1273 presented 11/19 @ 10:30-11:30am	Thomas Munson† (Engineering JMHC) Maxwell Christopher Sprague† (Engineering) Nathan Alexander Kilmert† (Engineering JMHC) Alec Chong Peng† (Engineering)	Timothy Francis Hein (Engineering)
Poster #1277 presented 11/19 @ 10:30-11:30am	Rafael Obici de Oliveira† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1278 presented 11/19 @ 10:30-11:30am	Mia Cynthia Pfeiffer† (Agriculture Engineering JMHC) Anne Flynn Campbell† (Agriculture Engineering) Collin Jayson Kao‡ (Agriculture Engineering)	Kari L Clase (Engineering) Julia Ann Simler (Agriculture) Amanda K Limiac (Engineering)
Poster #1280 presented 11/19 @ 10:30-11:30am	Katherine Alfreda Poirier† (Agriculture Engineering JMHC) Lauren Elizabeth Bhat† (Agriculture Engineering) Lauren Marie Schinker‡ (Agriculture Engineering JMHC)	Kari L Clase (Engineering) Somali Chaterji (Engineering) Julia Ann Simler (Agriculture) Amanda K Limiac (Engineering)
Poster #1281 presented 11/19 @ 10:30-11:30am	Aakarsh Nagendra Rait† (Science) Donald Alexander Weintz† (Engineering) Jianing Wang† (Science) Aditya Mallepalli† (Science) Preetham Reddy Yerragudi† (Science)	Edward J Delp (Engineering) Carla Zoltowski (Engineering)
Poster #1285 presented 11/19 @ 10:30-11:30am	Atharva S Rao† (Engineering) Moeyad OmerAbdalla Omer† (Engineering) Avanish Karlapudi† (Engineering) Dogyu Ryu† (Engineering)	Om P Kotwal (Engineering) Vishnu Chaithanya Lagudu (Engineering) Isaac P Hagedorn (Engineering)
Poster #1287 presented 11/19 @ 10:30-11:30am	Partha Rathi† (Engineering) Dat Hien Tieu† (Engineering) Jason Zhengxuan Huang† (Engineering) Cassandra Lobo Gonzalez† (Engineering) Kai Ye† (Engineering)	Kevin T Lee (Engineering)
Poster #1290 presented 11/19 @ 10:30-11:30am	Adam Jair Selby† (Engineering JMHC)	Junfei Li (Engineering)
Poster #1291 presented 11/19 @ 10:30-11:30am	Ranav Sethi† (Science) Robert M Rattray† (Engineering) Rohit Kannan† (Science JMHC) Ping-Hung Nick Ko† (Engineering)	Yeon Ji Yun (Liberal Arts) Yung-Hsiang Lu (Engineering)
Poster #1293 presented 11/19 @ 10:30-11:30am	Aarav Singh† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1296 presented 11/19 @ 10:30-11:30am	Sara Thomason† (Agriculture JMHC) Zhiyuan Chen† (Agriculture Engineering)	Kari L Clase (Engineering) Julia Ann Simler (Agriculture) Amanda K Limiac (Engineering)
Poster #1297 presented 11/19 @ 10:30-11:30am	Gaurav Vermani† (Engineering) Ryan Alexander Kubinski† (Engineering)	Aravind Machiry (Engineering) Shashank Sharma (Engineering) Ayushi Sharma (Engineering)
Poster #1298 presented 11/19 @ 10:30-11:30am	Jingyu Xiao† (Engineeing JMHC) Jessica Serena Jiayue Li‡ (Engineering JMHC)	Jinha Jung (Engineering) Fatemeh Azimi (Interdisciplinary & Special Programs)

Presentation	Students	Mentors
Poster #1299 presented 11/19 @ 10:30-11:30am	Jeslyn Cheng Yang† (Science) Brian Ross Ramos† (Polytechnic) Angela Qian† (Science) Jacob Ray Morales† (Engineering) Ramsey Daniel† (Engineering) Alessandra Rice† (Engineering)	Soudabeh Taghian Dinani (Engineering) Carla Zoltowski (Engineering) Zheyuan Zhang (Engineering) Edward J Delp (Engineering)
Poster #1300 presented 11/19 @ 10:30-11:30am	Ryan Zhe-Wei Yang† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1305 presented 11/19 @ 10:30-11:30am	Owen Hodges† (Engineering) Keiko Yamamoto*	Joseph Speight (United States Military Academy West Point)
Poster #1307 presented 11/19 @ 10:30-11:30am	Caroline Marie Cameron† (Engineering)	Shubhra Bansal (Engineering) Jakob Isaiah Ramos (Engineering)
Poster #1308 presented 11/19 @ 10:30-11:30am	Ethan Christian Christiet† (Engineering)	Shubhra Bansal (Engineering) Huilong Liu (Engineering) Bijay Chhetri (Engineering)
Poster #1309 presented 11/19 @ 10:30-11:30am	Luke Joseph Fortner† (Engineering)	Muhammad A Alam (Engineering) Md Asaduz Zaman Mamun (Engineering)
Poster #1310 presented 11/19 @ 10:30-11:30am	Siddharth Gaur† (Engineering) Franco Harding Garcia† (Engineering)	Saeed Mohammadi (Engineering)
Poster #1311 presented 11/19 @ 10:30-11:30am	Parker Joseph Jeffrey† (Engineering)	Shubhra Bansal (Engineering) Faharia Hasan Bhuiyan (Engineering) Haohan Guo (Engineering)
Poster #1312 presented 11/19 @ 10:30-11:30am	Alexander Hanson Lam† (Engineering)	Ketankumar Jayantkuma Yogi (Engineering)
Poster #1313 presented 11/19 @ 10:30-11:30am	Ho Jun Lee† (Engineering) Geetika Chitturi† (Engineering JMHC)	Haitong Li (Engineering) Jun Cai (Engineering)
Poster #1314 presented 11/19 @ 10:30-11:30am	Colton Pierce Lennen† (Engineering) Caleb Michael Braziel* (Engineering)	Lijia Xie (Engineering) John E Blendell (Engineering)
Poster #1315 presented 11/19 @ 10:30-11:30am	Ian Quan† (Engineering)	Tiwei Wei (Engineering) Ketankumar Jayantkuma Yogi (Engineering)
Poster #1316 presented 11/19 @ 10:30-11:30am	Ethan Xinghan Tan† (Engineering JMHC)	Saeed Mohammadi (Engineering)
Poster #1317 presented 11/19 @ 10:30-11:30am	Mark Joseph Tereck† (Engineering)	Shubhra Bansal (Engineering) Bijay Chhetri (Engineering)
Poster #1404 presented 11/19 @ 12:00-1:00pm	Yash Rajendra Ashtekar† (Engineering) Utkarsh Bali† (Science Graduate)	Pengyi Shi (DSB)
Poster #1406 presented 11/19 @ 12:00-1:00pm	Ekam Bhullar† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1410 presented 11/19 @ 12:00-1:00pm	Joshua Decker Buss† (Engineering JMHC) Grant Joseph Miller* (Engineering JMHC)	Tiwei Wei (Engineering)
Poster #1414 presented 11/19 @ 12:00-1:00pm	Aniket Chatterjee† (Engineering JMHC)	Mark Johnson (Engineering) Cole Aaron Nelson (Engineering)
Poster #1416 presented 11/19 @ 12:00-1:00pm	Arunima Chowdhury† (Science) Marisa Jean Fredrickson† (Engineering) Aryan Kaul† (Science) Amber Kuoiwa Khau† (Science) Hridhay Monangi† (Science) Dean Snyder† (Engineering JMHC) Sophia Elizabeth Steele† (Engineering) Taryn Celia Zakrzewski† (Engineering) Matthew Dharma Kurniawan† (Science) Mark Alexander Myers‡ (Polytechnic) Aaron Parihar‡ (Polytechnic JMHC) Kyle Patrick Fox‡ (Polytechnic) Daitian Zhao‡ (Polytechnic)	Renee Murray (Liberal Arts) Frederick C Berry (Polytechnic)

Presentation	Students	Mentors
Poster #1419 presented 11/19 @ 12:00-1:00pm	Felipe da Paixao† (DSB)	Shreya Ghosh (Engineering)
Poster #1420 presented 11/19 @ 12:00-1:00pm	Aryan Daga† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1421 presented 11/19 @ 12:00-1:00pm	Leo Deng† (Science) Chien Chou Ho† (Engineering) Rishi Mantri† (Engineering) Arjun Sandeep Gupte† (Engineering)	James C Davis (Engineering) Huiyun Peng (Engineering)
Poster #1423 presented 11/19 @ 12:00-1:00pm	Abigail J Dressman† (Engineering)	Sunghee Park (Engineering)
Poster #1424 presented 11/19 @ 12:00-1:00pm	Prakhar Droliat† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1429 presented 11/19 @ 12:00-1:00pm	Raul Hector Fuentes Hernandez† Ivan Gregorio Vega Campas†	Eduardo Barocio Vaca (Engineering) Jalil Francisco Francisco Chavez Galaviz (Engineering)
Poster #1432 presented 11/19 @ 12:00-1:00pm	Justin Zijie Gan† (Engineering) Sahithi Gokavarapu† (Science) Pranati Patchigolla† (Science)	Andres Felipe Hoyos Moreno (Engineering) Samuel Labi (Engineering) Richard Osita Ajagu (Engineering)
Poster #1434 presented 11/19 @ 12:00-1:00pm	Kush Gogia† (Engineering) Christopher Michael Sigmund† (Engineering) Ilhoon Lee† (Science)	James C Davis (Engineering)
Poster #1435 presented 11/19 @ 12:00-1:00pm	Saloni Gupte† (Science)	Hayagreev Vadhiraaj Sarma Keri (Engineering) Scott R Pluta (Science)
Poster #1437 presented 11/19 @ 12:00-1:00pm	Bennett Michael Hanan† (Engineering) Margulan Mukhametkarim† (Engineering) Benjamin Harris Ciliberto† (Engineering) Ridge McCain Blankenship† (Engineering) Alexander T Valdes‡ (Engineering) Nicholas Keir Wade‡ (Science) Andrew Joseph Shelley‡ (Polytechnic) Alexander Kmetko‡ (Engineering) Liam M McCormack‡ (Polytechnic)	Brittany A Newell (Polytechnic) Richard M Voyles (Polytechnic) Samuel Labi (Engineering)
Poster #1439 presented 11/19 @ 12:00-1:00pm	Nolan Lee Hardman† (Engineering) Jacob Henry Rikkola† (Engineering) Adrienne Dale Torres Balahadia† (Engineering) Bader Emad Abu-Shanab† (Engineering) Zilan Patel† (Engineering) James M Scanlan† (Engineering) Aaditi Anupam Vaval† (Engineering)	Afshin Izadian (Polytechnic) Christine Taylor (Polytechnic) Arvind Krishna Radhakrishnan (Engineering)
Poster #1447 presented 11/19 @ 12:00-1:00pm	Azain Khalid† (Science) Jack Harrison Reynolds† (Science) Kushal Venkata Peddakotla† (Engineering) Aiden M Hudson† (Science) Bailey Marie Jones† (Engineering)	Robin Carpenter (Science) Andy Jung (Science)
Poster #1448 presented 11/19 @ 12:00-1:00pm	Devansh Khandelwal† (Science) Dinh Huy Tuan Nhu† (Science) Arnav Daryani† (Science) Jeffrey Jingwei Wu† (Science)	Edward J Delp (Engineering) Carla Zoltowski (Engineering)
Poster #1449 presented 11/19 @ 12:00-1:00pm	Seeun Kim† (Engineering)	Dali Lai (Engineering)
Poster #1454 presented 11/19 @ 12:00-1:00pm	William Lee† (Engineering)	Junfei Li (Engineering)
Poster #1455 presented 11/19 @ 12:00-1:00pm	Laurian Kate Lien† (Agriculture Engineering)	Kurt Ristroph (Engineering) Lucas Johnson (Agriculture)

Presentation	Students	Mentors
Poster #1457 presented 11/19 @ 12:00-1:00pm	Emily Loiselle† (Engineering JMHC) Joseph Huang† (Engineering) Nandini Mukul Pande† (Science) Rahul Sasi Menon† (Science Graduate) Chaeun Kim† (Engineering)	Edward J Delp (Engineering) Carla Zoltowski (Engineering) Fengqing Zhu (Engineering)
Poster #1459 presented 11/19 @ 12:00-1:00pm	Adam Timothy Mack† (Engineering)	Muhammad A Alam (Engineering)
Poster #1460 presented 11/19 @ 12:00-1:00pm	Elias Malak† (Engineering) Taran Reddy Kamireddy† (Engineering) Nicholas John Albrecht‡ (Engineering) Nadia Bailen Boluda‡ (Engineering) Samarth Bhat‡ (Engineering) Cooper Lee Cotton‡ (Engineering) Lara Nour Courgi‡ (Engineering) Luke Davis‡ (Engineering) Tamara Shakri Houran‡ (Engineering) Pratika Kumar‡ (Engineering) Jakob Eric Mikolajczyk‡ (Engineering) Gema Roselyn Parra‡ (Engineering)	Ken Yoshida (Engineering) Steve Higbee (Engineering)
Poster #1462 presented 11/19 @ 12:00-1:00pm	Hannah Jordan Margulis† (Engineering JMHC)	Frederick Prete (Lake Forest College)
Poster #1466 presented 11/19 @ 12:00-1:00pm	Rafael Monteiro Martins Pinheiro† (Science) Miguel Isrrael Teran† (Engineering)	Mark Johnson (Engineering) Timothy Francis Hein (Engineering)
Poster #1467 presented 11/19 @ 12:00-1:00pm	Ishita Mukadam† (Engineering)	Mrudula Mukadam (Maharishi International University)
Poster #1469 presented 11/19 @ 12:00-1:00pm	Tovia Grace Owen† (Agriculture Engineering)	Rose Prabin Kingsly Ambrose (Engineering)
Poster #1472 presented 11/19 @ 12:00-1:00pm	Kiersten Mackenzie Penquite† (Engineering JMHC)	Lisa B Bosman (Polytechnic)
Poster #1477 presented 11/19 @ 12:00-1:00pm	Sudarmadhi Rabindran† (Engineering)	Alexey Shashurin (Purdue University) Steven M Pugia (Engineering) Keegan Franics Chavez (Engineering)
Poster #1480 presented 11/19 @ 12:00-1:00pm	Sarah Schloff† (Engineering)	Dianne Little (Vet Med) Paula A Sarmiento Huertas (Engineering)
Poster #1481 presented 11/19 @ 12:00-1:00pm	Sophia Isabella Schroert† (Engineering JMHC)	Tiwei Wei (Engineering)
Poster #1486 presented 11/19 @ 12:00-1:00pm	Sarah Michelle Sewell† (Engineering) Leo Chen† (Engineering) Sun Hong H Park† (Polytechnic) Ata Ulas Guler† (Engineering) Rachel Wingyan Ho† (Engineering)	David Michael Barbarash (Agriculture)
Poster #1487 presented 11/19 @ 12:00-1:00pm	Samantha Marcelle Sima† (Engineering)	Joshua Michael Cox (Engineering) Riley Bradley Barta (Engineering)
Poster #1488 presented 11/19 @ 12:00-1:00pm	Tamir Sklansky† (Engineering) Timber Michael Bionda† (Engineering) Elijah Temesgen Ponds† (Engineering) Ron Cheng Xuan Chay† (Engineering) Robert Henry Walch† (Engineering)	Niall Patrick Moloney (Engineering)
Poster #1494 presented 11/19 @ 12:00-1:00pm	Robert Patterson Stewart† (Engineering) Isaiah Maningas† (Engineering) Jason Jaesung Lew† (Engineering JMHC)	Eduardo Barocio Vaca (Engineering)

Presentation	Students	Mentors
Poster #1497 presented 11/19 @ 12:00-1:00pm	Benjamin Thomas Sykes [†] (Engineering) Rohin Rajesh Nair [†] (Engineering) Emily Song [†] (Engineering) Aroldo Fernando Lugo Quintanilla [†] (Engineering) Alexander Popescu [†] (Engineering) Shreya Shrikrushna Pulujkar [†] (Engineering)	Samuel Labi (Engineering) Sashank Modali (Engineering) Richard Osita Ajagu (Engineering)
Poster #1498 presented 11/19 @ 12:00-1:00pm	Tatiana Varela [†] (Engineering) Pranav Singh [†] (Engineering JMHC) Ananya Prasad [†] (Engineering JMHC) Lainie Jane Rapp [†] (Engineering) Colby Strohl [†] (Engineering) Bella Irma Schaetzle [†] (Engineering) Clara Marie Anne Goffioul [†] (Engineering) Simran Nadig [†] (Engineering JMHC) Praneel Madhuvanesh [‡] (Engineering) Nathanael Adrian Lorincz [‡] (Engineering)	Tyler N Tallman (Engineering)
Poster #1502 presented 11/19 @ 12:00-1:00pm	Yun-Jen Wu [†] (Engineering) Isabel Alejandra Arias Zambrano [†] (Engineering) Jenna Marie Marquette [†] (Engineering) Jack Valenti [†] (Engineering) Henry Qin [†] (Engineering)	Saeed Mohammadi (Engineering) Peter Bermel (Engineering) Tiwei Wei (Engineering) Rahim Rahimi (Engineering)
Poster #1503 presented 11/19 @ 12:00-1:00pm	Yilin Xu [†] (Engineering) Eshan Mathur [†] (Engineering) Atharva Umesh Bhide [†] (Engineering) Armaan Kanchan [†] (Engineering)	Johnathan Hong (Engineering) Cole Aaron Nelson (Engineering)
Poster #1506 presented 11/19 @ 12:00-1:00pm	Brendan Duffy [†] (Engineering JMHC) Hannah Y Chun* (Engineering) Rongkai Yu* (Engineering)	Sean Yenyu Lai (Engineering) Ganesh Subbarayan (Engineering)
Poster #1507 presented 11/19 @ 12:00-1:00pm	Jack Rearden Ferlazzo [†] (Engineering JMHC)	Xianfan Xu (Engineering) Ishat Raihan Jamil (Engineering)
Poster #1508 presented 11/19 @ 12:00-1:00pm	Nolan Parker Gronowski [†] (Engineering)	Ritwik Vijaykumar Kulkarni (Engineering) Amy M Marconnet (Engineering)
Poster #1509 presented 11/19 @ 12:00-1:00pm	Remley Grace Hooker [†] (Engineering)	Peide Ye (Engineering)
Poster #1510 presented 11/19 @ 12:00-1:00pm	Robert Scott Richards [†] (Engineering)	Liang Pan (Engineering)
Poster #1511 presented 11/19 @ 12:00-1:00pm	Jonathan Samuel Ryan [†] (Engineering)	Justin Weibel (Engineering)
Poster #1512 presented 11/19 @ 12:00-1:00pm	Allison Nobuko Scher [†] (Engineering)	Haiyan Wang (Engineering) Benson Qun Tsai (Engineering) Jialong Huang (Engineering)
Poster #1513 presented 11/19 @ 12:00-1:00pm	Lindsay Kathryn Sutherland [†] (Engineering JMHC)	Amy M Marconnet (Engineering) Shanmukhi Sripada (Engineering)
Poster #1514 presented 11/19 @ 12:00-1:00pm	Bradon Rowan Timms [†] (Engineering JMHC)	Thomas Edwin Beechem (Engineering) Walter J Smith (Engineering)
Poster #1515 presented 11/19 @ 12:00-1:00pm	Kyle J Wiegand [†] (Engineering)	Shubhra Bansal (Engineering)
Poster #1516 presented 11/19 @ 12:00-1:00pm	Noah James Willis [†] (Engineering)	Amy M Marconnet (Engineering) Luz Sotelo (Engineering)
Poster #1601 presented 11/19 @ 1:30-2:30pm	Ishaan Krishna Agrawal [†] (Engineering) Aaron David Slamovich [†] (Engineering) Elle S Case [†] (Engineering) Maxim Nickolas Yamilov [†] (Engineering)	James Garrison (Engineering) Jordan Joseph Alexander (Engineering)

Presentation	Students	Mentors
Poster #1605 presented 11/19 @ 1:30-2:30pm	Amartya Bagchi† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1609 presented 11/19 @ 1:30-2:30pm	Leyton Drew Bostre† (Engineering) Michael Robert Knaack† (Engineering) Samyukta Balaji† (Engineering) Aditya Krishnan Sivathanu‡ (Engineering) Kevin Ming Chang‡ (Engineering)	James G Ogg (Science) Aaron C Ault (Engineering)
Poster #1612 presented 11/19 @ 1:30-2:30pm	Siddarth Balaji Calidas† (Engineering)	Vishnu Chaithanya Lagudu (Engineering) Isaac P Hagedorn (Engineering) Mark Johnson (Engineering)
Poster #1616 presented 11/19 @ 1:30-2:30pm	Harnoor Cheema† (Engineering) Jacob Chappell‡	Mark Johnson (Engineering) Timothy Francis Hein (Engineering)
Poster #1620 presented 11/19 @ 1:30-2:30pm	Ashton Isaiah Cotton† (Engineering JMHC)	Taimoor Hasan Qazi (Engineering)
Poster #1623 presented 11/19 @ 1:30-2:30pm	Sarah Z Deniz† (Engineering)	Kendrick Clay Hardaway (Engineering)
Poster #1624 presented 11/19 @ 1:30-2:30pm	Aryaman Dewant† (Science) Malyka Ram† (Agriculture Engineering) Priyanshu Datta Roy† (Agriculture Engineering JMHC) Rishabh Kottakota* (Science)	Uma K Aryal (Vet Med)
Poster #1625 presented 11/19 @ 1:30-2:30pm	Harman Kaur Dhillon† (Engineering) Madison Taylor Beaudry† (Liberal Arts) Collin Hoffman† (Engineering JMHC) Rohan Suraj Desai† (Engineering) Aditya Sarwaikar‡ (Engineering) Alexander David Perry‡ (Engineering) Aryana Isabelle Deshpande‡ (Engineering) Christopher David Butler‡ (Engineering) Tryston Frederick Espiritu‡ (Engineering) Junhee Lim‡ (Science) Weijing Sebastian Chen‡ (Engineering) Logan Paul Hussein‡ (Engineering)	James Michael Goppert (Engineering)
Poster #1628 presented 11/19 @ 1:30-2:30pm	Vatsal Sanjeevkumar Dudhaiya† (Engineering) Tingyu Yin† (Science)	Marco Hadisurya (Agriculture)
Poster #1631 presented 11/19 @ 1:30-2:30pm	Natalia Brynn Gaffney† (Agriculture) Leilani Grace Agngarayngay† (Agriculture Engineering) Alexis Lucille Ador Bernal‡ (Agriculture Engineering)	Kari L Clase (Engineering) Julia Ann Simler (Agriculture) Amanda K Limiac (Engineering)
Poster #1633 presented 11/19 @ 1:30-2:30pm	Mahineer Ghosh† (Engineering) Varun Rajesh† (Engineering) Makeda Teshome Duey† (Engineering) Ansh Alpesh Kothari† (Engineering JMHC)	Jesus Adrian Meza Galvan (Engineering) Steven M Pugia (Engineering) Anthony G Cofer (Engineering) Alina Alexeenko (Engineering)
Poster #1634 presented 11/19 @ 1:30-2:30pm	Sarah Elizabeth Grev† (Engineering) Samantha Stebbings* (Engineering JMHC) Jake Anthony Castro* (Engineering) Nadia Hayes Wheeler* (Engineering)	Craig Goergen (Engineering) Elnaz Ghajar-Rahimi (Engineering)
Poster #1635 presented 11/19 @ 1:30-2:30pm	Aakrit Gupta† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1639 presented 11/19 @ 1:30-2:30pm	Julia Hopper† (Science JMHC) Jack Rearden Ferlazzo† (Engineering JMHC) Ashley Jo Schafer† (DSB JMHC) Vidya Reddy Madana‡ (Science)	Aparajita Jaiswal (Purdue University)
Poster #1643 presented 11/19 @ 1:30-2:30pm	Rishi Krishnan Iyer† (Engineering)	Carla B Rosell (Liberal Arts)

Student Role Notation: †Presenting Author, ‡Contributing Author, *Acknowledgment

Presentation	Students	Mentors
Poster #1645 presented 11/19 @ 1:30-2:30pm	Arnav Juneja† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1650 presented 11/19 @ 1:30-2:30pm	Sreesha Vedavalli Kidambi† (Agriculture Engineering) Jamie Youngjin Cho† (Agriculture Engineering) Jason England Thiagarajan† (Agriculture Engineering)	Kari L Clase (Engineering) Ruba Ahmad Qwai Alajlouni (Agriculture)
Poster #1651 presented 11/19 @ 1:30-2:30pm	Seeun Kim† (Engineering)	Minh Nam hoang Nguyen (Engineering) Junfei Li (Engineering)
Poster #1652 presented 11/19 @ 1:30-2:30pm	Erik Kocinare† (Engineering) Thomas Allen Greer† (Engineering)	Archana Dharanipragada (Engineering)
Poster #1654 presented 11/19 @ 1:30-2:30pm	Andrew James Larkins† (Engineering) Connor Ethan Behrend† (Engineering JMHC) Michael Lee† (Engineering)	Burkay Sahin (Engineering) Jingbo Wang (Engineering) Mark Johnson (Engineering)
Poster #1656 presented 11/19 @ 1:30-2:30pm	Kyung Jun Lee† (Engineering) Chun-Kang Huang† (Engineering) Daeun Kim† (Engineering) Tzu-Yun Liu† (Engineering)	Peter Bermel (Engineering) Mukerrem Cakmak (Engineering) Saeed Mohammadi (Engineering)
Poster #1658 presented 11/19 @ 1:30-2:30pm	Leo Pearson Malachowski† (Engineering JMHC) Bridget Katherine Heindl† (Liberal Arts JMHC) Ayden Timothy Fahey‡ (Science JMHC) Jennifer Lilian Yang‡ (Engineering JMHC)	Jason Ware (JMHC)
Poster #1662 presented 11/19 @ 1:30-2:30pm	Anika Mathur† (Science) Jiwon Seo† (Science) Samskrithi Sivakumar† (Science) Charles Chen† (Science) Sein Kim† (Science)	Brett A Meyers (Centers & Institutes) Pavlos Vlachos (Engineering) Lauren Ann Metskas (Science)
Poster #1667 presented 11/19 @ 1:30-2:30pm	Piotr Stanislaw Nabrzyski† (Engineering) Keegan Brenner Harris† (Science) Shlok Ashish Sheth† (Science) Joonyeoup Kim† (Engineering) William Benjamin Tao† (Engineering)	Edward J Delp (Engineering)
Poster #1668 presented 11/19 @ 1:30-2:30pm	Niharika Narra† (Engineering JMHC)	Cortland Hannah Johns (Engineering)
Poster #1672 presented 11/19 @ 1:30-2:30pm	Jonathan Aimison Oppenheimer† (Science) Henry Hengyi Tsay† (Science) Lucas Tan† (Science) Thanmaya Pattanashetty† (Science) Shiva Sai Vummaji‡ (Science) Tim Nadolsky‡ (Science) Chiho Song‡ (Science) Liam Matthew Stonestreet‡ (Science) Haichang Li‡ (Polytechnic)	Yeon Ji Yun (Liberal Arts) Yung-Hsiang Lu (Engineering)
Poster #1675 presented 11/19 @ 1:30-2:30pm	Paul Kyu-Hwan Park† (Polytechnic) Caden Cole Cowles‡ (Polytechnic)	Garam Kim (Polytechnic) Jacob Robert Montrose (Polytechnic) Eduardo Barocio Vaca (Engineering)
Poster #1677 presented 11/19 @ 1:30-2:30pm	Vishwajit Laxmanrao Patil† (Engineering)	Carla B Rosell (Liberal Arts)
Poster #1686 presented 11/19 @ 1:30-2:30pm	Emily Joy Reeves† (Agriculture) Ally Morgan Wigand† (Agriculture Engineering)	Aaron J Gin (Purdue University)

Presentation	Students	Mentors
Poster #1687 presented 11/19 @ 1:30-2:30pm	Alexander Repikov† (Engineering JMHC) Robert Yida Zhang† (Engineering JMHC) Nathan Nanchuen Yu† (Engineering) Moe Wai Yan Myint† (Engineering) Fatma Mohamed Ahmed Youssef Alagroudy† (Engineering) Yara Ahmed Mohamed Abbas† (Engineering) Khoi Anh Nguyen† (Engineering)	Timothy Francis Hein (Engineering) Mark Johnson (Engineering)
Poster #1690 presented 11/19 @ 1:30-2:30pm	Aishani Sakalabhaktula† (Engineering)	Lisa B Bosman (Polytechnic)
Poster #1691 presented 11/19 @ 1:30-2:30pm	Justin Sanchez† (Engineering) Duc Pham Minh† (Engineering) Jain Iftesam† (Engineering) Saandiya KPS Mohan† (Engineering)	Om P Kotwal (Engineering) Cole Aaron Nelson (Engineering)
Poster #1692 presented 11/19 @ 1:30-2:30pm	Sarah Sawhney† (Engineering) Ian Tseng† (Engineering) Chien Chou Ho† (Engineering) Jiali Shi† (Science) Taehoon Kim† (Engineering) Yi-Huan Chen† (Engineering) Ching-Hsiang Huang‡ (Engineering)	Shreya Ghosh (Engineering)
Poster #1693 presented 11/19 @ 1:30-2:30pm	Christian Paul Hardy Scott† (Engineering JMHC)	Babak Anasori (Engineering) Anupma Thakur (Engineering) Nithin Chandran Balachandran Sajitha (Engineering)
Poster #1694 presented 11/19 @ 1:30-2:30pm	Amirali Sharifi Olounabadi† (Science) Alaqmar Adnan Bohori† (Engineering) Sagnik Ballabh† (Science) Tiancheng Zhang† (Science)	Santosh Bhandari (Science) Andy Jung (Science)
Poster #1695 presented 11/19 @ 1:30-2:30pm	Ahmed Wael Shebl† (Engineering) Zeyad Ayman El Afify† (Engineering) Abdelrahman Hamdy Ghania† (Engineering)	Fengqing Zhu (Engineering) Carla Zoltowski (Engineering) Edward J Delp (Engineering) Soudabeh Taghian Dinani (Engineering)
Poster #1696 presented 11/19 @ 1:30-2:30pm	John Henry Slatert† (Science JMHC) Braden Thomas Callaway* (Engineering) Natalia Zagata* (Engineering) Blake Edward Neely* (Engineering) Alexander Paul Kaufmann* (Engineering)	James Michael Goppert (Engineering) Worawis Sribunma (Engineering) Chase Ja-ok Loeb (Engineering)
Poster #1697 presented 11/19 @ 1:30-2:30pm	Brody Everett Snyder† (Science JMHC) Elizabeth Reeves Cagle† (Engineering JMHC) Yi Li† (Engineering JMHC) Padmaja Sachin Khairnar† (Engineering JMHC) Pranav Perumal† (Science) Kevin Nathan Qu† (Science JMHC)	Robert Jose Ccorahua santo (Engineering) Wenzhuo Wu (Engineering)
Poster #1698 presented 11/19 @ 1:30-2:30pm	Lautaro Franco Solert† (Engineering)	Krishna Jayant (Engineering) Saumitra Yadav (Engineering) Austin Dennis Cronin (Engineering)
Poster #1701 presented 11/19 @ 1:30-2:30pm	Nick Taha† (Engineering) Rishikesh Reddy Bathina† (Engineering) Pierce Yungjoon Johnson† (Engineering) Argha Badhon Saha† (Engineering)	Anand Raghunathan (Engineering) Mark Johnson (Engineering)
Poster #1705 presented 11/19 @ 1:30-2:30pm	Andres Uzcateguit† (Engineering)	Krishna Jayant (Engineering)

Presentation	Students	Mentors
Poster #1706 presented 11/19 @ 1:30-2:30pm	Pranav Wadhwa† (Engineering) Kevin Luke Phlips† (Engineering)	Mark Johnson (Engineering) Timothy Francis Hein (Engineering) Anand Raghunathan (Engineering)
Poster #1707 presented 11/19 @ 1:30-2:30pm	Charles James Wagner† (Engineering) Vinay Pundith† (Engineering)	Mark Johnson (Engineering) Anand Raghunathan (Engineering) Malcolm Lloyd Seib McClymont (Engineering)
Poster #1710 presented 11/19 @ 1:30-2:30pm	Robert Thomas Welp† (Engineering)	Joshua Michael Cox (Engineering) Riley Bradley Barta (Engineering)
Poster #1712 presented 11/19 @ 1:30-2:30pm	William Wong† (Engineering) varun Vaidyanathan† (Engineering JMHC) Yue Yin† (Engineering)	Mark Johnson (Engineering) Anand Raghunathan (Engineering) Sooraj Chetput Venkataraghavan (Engineering)
Poster #1713 presented 11/19 @ 1:30-2:30pm	Jinhoo Yoon† (Science) Brandt David Pierce† (Engineering) Arnav Jadhav† (Engineering) Christian Scheckel† (Engineering) Aditya Gandhi† (Science) Tylen Sean Fleming† (DSB) Nicholas James Detwiler‡ (Science Graduate JMHC) Omkar Ghodke‡ (Engineering) Warat Nathan Vijitbenjaronk‡ (Science) Keshav Shylesh‡ (Science) Tanvi Chukka‡ (Engineering) Truman Stephen Mohr‡ (Science JMHC)	Thomas Edgar Roth (Engineering) Samuel Theodore Elkin (Engineering) Ghazi Khan (Engineering)
Research Talk #7000 presented 11/20 @ 9:00am	Hanhyun Kwak† (Engineering)	Garam Kim (Polytechnic) Sung Jun Choi (Polytechnic) Eduardo Barocio Vaca (Engineering)
Research Talk #7001 presented 11/20 @ 9:20am	Amar AlAzizy† (Engineering) Omar Faramawy Elsayed† (Engineering)	Aravind Machiry (Engineering) Arunkumar Bhattar (Engineering)
Research Talk #7002 presented 11/20 @ 9:40am	Myron Milad Tadros† (Engineering) Ahmed Sayed Omar Omar† (Engineering) Omar Ahmed Roshdi Badawi Abousheishaa† (Engineering) Bola Yosry Zaky Warsy† (Engineering) Abdelrahman Ahmed Safwat Eissa† (Engineering)	Andres Felipe Hoyos Moreno (Engineering) Samuel Labi (Engineering)
Research Talk #7003 presented 11/20 @ 9:00am	Trisha Boodhoo† (Engineering)	Carl R Wassgren (Engineering)
Research Talk #7004 presented 11/20 @ 9:20am	Tanya Sophia Masnyk† (Engineering)	Qingchun Li (Polytechnic) Daniel R Chavas (Science)
Research Talk #7005 presented 11/20 @ 9:40am	Surya Pratheek Turaga† (Engineering JMHC)	Wenzhuo Wu (Engineering) Jing Jiang (Engineering)
Research Talk #7012 presented 11/20 @ 10:00am	Manav Nikhil Gagvani† (Engineering) Sangeet Mohan† (Engineering) Jaron David Hunt† (Engineering)	Shreya Ghosh (Engineering)
Research Talk #7013 presented 11/20 @ 10:20am	Ian Owen Out† (Engineering) Julianne Quin Iaccarino† (Engineering) Ibrahim Issa Abdullah† (Engineering) Basil Khwaja† (Engineering) Ron K Natarajan† (Science)	Monika Tomar (Engineering) Yung-Hsiang Lu (Engineering)
Research Talk #7014 presented 11/20 @ 10:40am	Mathis Malaussena† (Engineering)	Alexey Shashurin (Purdue University) Lee E Organski (Engineering)

Presentation	Students	Mentors
Research Talk #7020 presented 11/20 @ 10:40am	Aakanksha Amol Shripal† (Engineering) Son Ha† (Science) Akhil Sagarán Kasturi‡ (Science) Akshitha Kartigueyan‡ (Science) AaroHi Panzade‡ (Science JMHC)	David J Purpura (HHS)
Research Talk #7024 presented 11/20 @ 11:00am	Divya Raghvendra Manvikar† (Engineering) Mira Nimesh Patel† (Engineering) Dipali Rebecca Abraham† (Engineering)	Ryan B Wagner (Engineering) Arezoo Ardekani (Engineering)
Research Talk #7025 presented 11/20 @ 11:20am	Maria Macias† (Engineering)	Claudia Benito Alston (Engineering) Luis Solorio (Engineering)
Research Talk #7026 presented 11/20 @ 11:40am	Minchae Yun† (Science) Huy Duc Vu† (Science) Vishwadeep Singh† (DSB) William Emre Ozkan† (DSB JMHC)	Edward J Delp (Engineering) Fengqing Zhu (Engineering) Soudabeh Taghian Dinani (Engineering) Carla Zoltowski (Engineering)
Research Talk #7036 presented 11/20 @ 12:00pm	Victor Ionut Ene† (Engineering) Danica Brynn Joynert† (Engineering) Nathan James Arnold† (Engineering) Harshavi P Birla† (Engineering) Natasha Rajendrarao Gundapaneni† (Engineering) Ty Dean Frederick† (Engineering) Shelby Grace Britton† (Engineering) Parth Kailash Dubal† (Engineering) Bhaskar S Patke† (Engineering)	James Michael Goppert (Engineering) Kong (Engineering) Nicole Adams (Centers & Institutes)
Research Talk #7037 presented 11/20 @ 12:20pm	Lucy Anne Jurow† (Engineering) Hannah Jordan Margulis† (Engineering JMHC)	Megan Hope Lipton (Science) Maria Cristina Makin (Engineering)
Research Talk #7038 presented 11/20 @ 12:40pm	William Henry Stevens† (Science) Gabriel A Torres† (Engineering) Karthik Selvaraj† (Engineering) Leo Ross Benaharon† (Engineering) Surya Teja Sripathi† (Science) Arnav Dushyant Choudhry† (Engineering)	Edward J Delp (Engineering) Carla Zoltowski (Engineering) Fengqing Zhu (Engineering)
Research Talk #7043 presented 11/20 @ 12:20pm	Sucheol Woo† (Polytechnic) Min Yong Chun* (Polytechnic)	Garam Kim (Polytechnic) Sung Jun Choi (Polytechnic) Eduardo Barocio Vaca (Engineering)
Research Talk #7044 presented 11/20 @ 12:40pm	Arjun Sandeep Gupte† (Engineering)	Byung-Cheol Min (Polytechnic) Ruiqi Wang (Polytechnic) Lakshmi Narayan Vishnunand Venkatesh (Polytechnic) Taehyeon Kim (Polytechnic)
Research Talk #7047 presented 11/20 @ 12:40pm	Revanth Krishna Senthilkumar† (Engineering JMHC)	Aniket Bera (Science) Apoorva Vashisth (Science)
Research Talk #7048 presented 11/20 @ 1:00pm	Hassan Berbich† (Engineering)	Denny Yu (Engineering)
Research Talk #7049 presented 11/20 @ 1:20pm	Amikosh Dubet† (Engineering) Noah Anthony Wisniewski† (Engineering) Jay Bhavesh Gandhi† (Engineering) William John Greenwood† (Science) Jammy Wang† (Science) Dhanush Adhitya Gopalakrishnan† (Engineering) Srikar Sastry Lanka‡ (Science) Berra Ulku Kalci‡ (Engineering) Richard Hastings Hambleton‡ (DSB)	Younggil Chang (Engineering) Shreyas Sundaram (Engineering)
Research Talk #7050 presented 11/20 @ 1:40pm	Gavin Michael Fortwendel† (Science)	Yi Ding (Engineering) Inez Hua (Engineering)

Student Role Notation: †Presenting Author, ‡Contributing Author, *Acknowledgment

Presentation	Students	Mentors
Research Talk #7057 presented 11/20 @ 1:00pm	William P Jiang [†] (Science JMHC) Gurtej Singh Bagga [†] (Science) Trevor Mission Ju [†] (Engineering) Paige Lorenz [†] (Science) Shivam Hemal Trivedi [‡] (Science) Shrinand Perumal [‡] (Science) Aadiv Reki [‡] (Science)	Yeon Ji Yun (Liberal Arts) Yung-Hsiang Lu (Engineering)
Research Talk #7060 presented 11/20 @ 2:00pm	Aishwarya Saikrupa Anand [†] (Engineering) Andy Hanjun Hu [†] (Engineering) Mary Francis [†] (Engineering JMHC) Dhruv Roopchand Khatri* (Engineering)	Cole Aaron Nelson (Engineering) Mark Johnson (Engineering)
Research Talk #7061 presented 11/20 @ 2:20pm	Christine Elizabeth Mayo [†] (Engineering) Adalene Noel Stangeland [†] (Agriculture Engineering) Meggie Faye Khantsis [†] (Agriculture JMHC) Megan Leanne Painter [‡] (Agriculture Engineering) Payton Elizabeth Gault [‡] (Agriculture)	Curtis Earl Marshall (Engineering)
Research Talk #7062 presented 11/20 @ 2:40pm	Jihyo Park [†] (Engineering) Shounak Mukherjee [†] (Engineering JMHC) Alexa Joan Noto [†] (Engineering) Ankitha Mallekav [†] (Engineering) Akanksh Rao [†] (Engineering) Hsin-Wei Hsieh [‡] (Engineering) Hyunsang Cho [‡] (Engineering) Jaewon Cho [‡] (Engineering)	Sivaranjani Seetharaman (Engineering)
Research Talk #7064 presented 11/20 @ 2:20pm	Madison Chloe Lee [†] (Agriculture Engineering)	Olga Lyanda-Geller (Liberal Arts)
Research Talk #7069 presented 11/20 @ 2:00pm	Rishabh Kottakota [†] (Science) Aryaman Dewan* (Science) Malyka Ram* (Agriculture Engineering) Priyanshu Datta Roy* (Agriculture Engineering JMHC)	Uma K Aryal (Vet Med)
Research Talk #7072 presented 11/20 @ 3:00pm	Lily Avery Waterman [†] (Engineering)	Md Ashiqur Rahman (Engineering) David Warsinger (Engineering)
Research Talk #7073 presented 11/20 @ 3:20pm	Shamalaa Sathiasealan [†] (Science)	Mohit Verma (Engineering) Josiah L Davidson (Agriculture)
Research Talk #7074 presented 11/20 @ 3:40pm	Shruthika Sundar [†] (Engineering)	Diksha Shukla (University of Wyoming)
Research Talk #7076 presented 11/20 @ 3:20pm	Jax Patrick Marrone [†] (Engineering) Andres Navarro [‡] (Science) Emily Le Bell [‡] (Science) Audrey V Harrison [‡] (Science)	Edward L Bartlett (Engineering) Meredith Christine Ziliak (HHS)
Research Talk #7077 presented 11/20 @ 3:40pm	Caroline Grace Thomas [†] (Engineering JMHC)	Charles Robert Kenley (Engineering)
Research Talk #7078 presented 11/20 @ 3:00pm	Marlo Ann Weber [†] (Science JMHC) Connor Taychin Underwood [†] (Science JMHC) Christopher Gerald Farber [†] (Science JMHC) Allyson Lynn Dinwiddie [†] (Liberal Arts JMHC) Jacob David Dorson [†] (Science JMHC) Hannah Morgan Stegall [†] (Engineering JMHC) Danielle C Ejiogu [†] (Science JMHC) Giovanni Ignatius Stabile [†] (Engineering JMHC)	Katherine Jarriel (JMHC)
Research Talk #7079 presented 11/20 @ 3:20pm	Ava Thant Samuel [†] (Engineering JMHC)	Lisa B Bosman (Polytechnic)

Presentation	Students	Mentors
Research Talk #7080 presented 11/20 @ 3:40pm	Brianna Nicole Lewis† (Engineering JMHC)	Pavlos Vlachos (Engineering)
Research Talk #7081 presented 11/20 @ 3:00pm	An My Nguyen† (Engineering)	Majid Kazemian (Science) Yuxin Zhuang (Agriculture)
Research Talk #7084 presented 11/20 @ 4:00pm	Doha Bahaa Eldin Hafez† (Engineering) Parker Steven Hitchcock† (Engineering) Hasan Sultan† (Engineering)	Niall Patrick Moloney (Engineering) Shreyas Sundaram (Engineering)
Research Talk #7085 presented 11/20 @ 4:20pm	Abdelrahman Osama Khalid† (Engineering) Kerollos Ehab Matta Yanny† (Engineering) Youssef Nagah Haidert† (Engineering) Manuel Ashraf Melad Gad† (Engineering)	Seyedehmarzieh Rouhani (Engineering) Archana Dharanipragada (Engineering) Mark Johnson (Engineering)
Research Talk #7086 presented 11/20 @ 4:40pm	Arman Kumar† (Science JMHC)	Mohit Verma (Engineering) Josiah L Davidson (Agriculture)
Research Talk #7087 presented 11/20 @ 4:00pm	Vidisha Singhal† (Engineering) Charles Spencer Bowles† (Engineering JMHC)	Peter Bermel (Engineering)
Research Talk #7088 presented 11/20 @ 4:20pm	Alberto Minaya Lopez† (Engineering)	Ramses Martinez (Engineering)
Virtual #9000 presented 11/19-11/26 virtually	Satvika Anand Raj† (Engineering)	Philip Eugene Pare (Engineering) Chi Ho Leung (Engineering)
Virtual #9001 presented 11/19-11/26 virtually	Elliott T Bueschert† (Engineering) Abhijeet Vijay Mohod† (Engineering) Grayson Dean Gibson† (Engineering) Roni H Aziz† (Engineering) Kyston Reeve Howard† (Engineering)	Steve Clayton Rausch (Engineering)
Virtual #9002 presented 11/19-11/26 virtually	Enrique Camacho† (Engineering JMHC) Haruna Kawai† (Engineering) Muhammad Ameer Hamza† (Engineering) Andrew Lee Schlabach‡ (Engineering) Geetika Chitturi‡ (Engineering JMHC) Akshath Raghav Ravikiran‡ (Engineering)	Boyuan Chen (Engineering) Sergey Zakharov (Purdue University) Mark Johnson (Engineering)
Virtual #9003 presented 11/19-11/26 virtually	Aritro Chatterjee† (Science) Evan Chareunsouk Sengsanith† (Engineering) Lauren M Burch† (Science) Camden Michael French† (Science) Lucas Michael Rulo† (Science) Yana Manishkumar Shah† (Science) Likith Reddy Singam† (Engineering)	Robin Carpenter (Science)
Virtual #9004 presented 11/19-11/26 virtually	Zhaoru Chen† (Engineering) Nicholas Helushka† (Engineering) Seongwon Hong† (Engineering) Minghan Wang† (Engineering) Arina Harlanovich† (Engineering) Milen Mundackal Manoj† (Engineering)	Abinands Ramshanker (Engineering) Mark Senn (Information Technology)
Virtual #9005 presented 11/19-11/26 virtually	Sanjna K Chokshi† (Engineering) Joshua Paikt† (Science) Nishaant Kunal Shah† (Engineering) Elina Ashish Shah† (Science)	Fiona Kolbinger (Engineering) Fengqing Zhu (Engineering) Soudabeh Taghian Dinani (Engineering)
Virtual #9006 presented 11/19-11/26 virtually	Indrayudh Chowdhury† (Engineering) Adam Jacob Keith† (Engineering)	Mark Johnson (Engineering) Isaac P Hagedorn (Engineering) Vishnu Chaithanya Lagudu (Engineering)
Virtual #9007 presented 11/19-11/26 virtually	Ryan James Cook† (Engineering)	Ryan James Cook (Engineering)
Virtual #9010 presented 11/19-11/26 virtually	Seth Christian Grabert† (Engineering)	Vishnu Chaithanya Lagudu (Engineering) Isaac P Hagedorn (Engineering)

Presentation	Students	Mentors
Virtual #9011 presented 11/19-11/26 virtually	William John Greenwood [†] (Science) Noah Anthony Wisniewski [‡] (Engineering)	Younggil Chang (Engineering) Amikosh Dube (Engineering) Shreyas Sundaram (Engineering)
Virtual #9012 presented 11/19-11/26 virtually	Christopher Barnes Haynes [†] (Engineering) Hayden Leonhard Supple [†] (Engineering) Edwin Alvarado [†] (Engineering)	Kevin T Lee (Engineering)
Virtual #9013 presented 11/19-11/26 virtually	Cole Allen Hufford [†] (Engineering) Madilyn Grace Shingle [†] (Engineering) Jack Brian Cramer [†] (Engineering) Alexander Marcus Krapel [†] (Engineering) Nolan Douglas Brown [†] (Engineering)	Steve Clayton Rausch (Engineering)
Virtual #9014 presented 11/19-11/26 virtually	Dhruv Roopchand Khatri [†] (Engineering) Zafeer Aaryan Reza [†] (Engineering) Yan-Jun Lin [†] (Engineering) Wei-Yun Liu [†] (Engineering)	Timothy Francis Hein (Engineering) Mark Johnson (Engineering)
Virtual #9015 presented 11/19-11/26 virtually	Mingyu Kim [†] (Engineering) Mohamed Sameh Abdeltawab Abdelmouty [†] (Engineering) Mohamed Alaa Mohamed Ahmed [†] (Engineering)	James C Davis (Engineering)
Virtual #9016 presented 11/19-11/26 virtually	Zelin Li [†] (Engineering)	Yu She (Engineering) Jaeun Kim (Engineering)
Virtual #9017 presented 11/19-11/26 virtually	Zelin Li [†] (Engineering)	Curtis Earl Marshall (Engineering)
Virtual #9018 presented 11/19-11/26 virtually	Jessica Frances Lyng [†] (Engineering) Rongbo Hu [‡] (Engineering)	Abolfazl Hashemi (Engineering) Zijian He (Engineering)
Virtual #9019 presented 11/19-11/26 virtually	Cohen Scott Meredith [†] (Engineering) Elliott Samuel Korentager [†] (Engineering) Willard Gabriel Rash Cuevas [†] (Engineering) Gavin Robert Beyer [†] (Engineering) Owen Michael Bartel [‡] (Engineering) Toby Dwayne George [‡] (Engineering) Meghana Sunil Kumar [‡] (Engineering) Pralhad Prashant Mundargi [‡] (Engineering) Samir Niradbhai Patel [‡] (Engineering) Gavin Wang [‡] (Engineering) Andrew Loren Peterson [‡] (Engineering)	Ken Yoshida (Engineering) Awadh Mubarak M Al Hawwash (Engineering)
Virtual #9020 presented 11/19-11/26 virtually	Gavin Neal Meyers [†] (Engineering) Zachary Gosnell [†] (Engineering) Rudra Vimlesh Patel [†] (Engineering) Gavin Allen Arner [†] (Engineering) Jin Park [†] (Engineering)	Steve Clayton Rausch (Engineering)
Virtual #9021 presented 11/19-11/26 virtually	Sonal Naik [†] (Science)	Vaneet Aggarwal (Engineering) Denny Yu (Engineering)
Virtual #9022 presented 11/19-11/26 virtually	Dang Kim Minh Nguyent [†] (Polytechnic) Donhyung Ko [†] (Engineering) Nam Hoang Tran [†] (Science) Muhammad Usman Mushahid [†] (Engineering)	Edward J Delp (Engineering)
Virtual #9023 presented 11/19-11/26 virtually	Seungkeun Oh [†] (Engineering) Shishir Tumma [†] (Engineering)	Shreya Ghosh (Engineering)
Virtual #9024 presented 11/19-11/26 virtually	Dev M Patel [†] (Engineering JMHC) Tri Than [†] (Engineering) Medha Mahesh Shinde [†] (Engineering) Benjamin Aaron McDowell [†] (Engineering)	Cole Aaron Nelson (Engineering) Johnathan Hong (Engineering)
Virtual #9025 presented 11/19-11/26 virtually	Akshath Raghav Ravikiran [†] (Engineering)	Han Sae Kim (Engineering) Jinha Jung (Engineering)

Student Role Notation: [†]Presenting Author, [‡]Contributing Author, *Acknowledgment

Presentation	Students	Mentors
Virtual #9026 presented 11/19-11/26 virtually	Robert Viktor Rozhansky† (Engineering)	Isaac P Hagedorn (Engineering)
Virtual #9027 presented 11/19-11/26 virtually	Tanmay Singla† (Engineering)	Dharun Rajkkumar Anandayavaraj (Engineering)
Virtual #9028 presented 11/19-11/26 virtually	Rohil H Tailor† (Engineering) Yongwook Lee† (Engineering) Ammar Hafiy Bin Abd Ghaffar† (Engineering) Jacob Metcalf† (Engineering) Rikhil Tadiparthi† (Engineering) Neal Jacob Grogg-Reading† (Engineering)	Kevin T Lee (Engineering)
Virtual #9029 presented 11/19-11/26 virtually	Laasya Thiagarajan† (Engineering)	Shubhra Bansal (Engineering) Huilong Liu (Engineering)
Virtual #9030 presented 11/19-11/26 virtually	Eric Chase Williams† (Engineering) Michael Brayden Hudson† (Engineering) Jacob Tyler Renta† (Engineering) Tsz Pui Jiang† (Engineering) YuKuan Lu† (Engineering)	Arvind Krishna Radhakrishnan (Engineering) Steve Clayton Rausch (Engineering)
Virtual #9031 presented 11/19-11/26 virtually	Yutong Wu† (Engineering) Sayee Sabri Anand† (Engineering) Aditya Hegde† (Engineering) Hao-Chen Li† (Engineering)	Steve Clayton Rausch (Engineering)