

COLLEGE OF SCIENCE

Patrick Wolfe  
*Frederick L. Hovde Dean*

November 27, 2017

To: Jay Akridge, Provost and Executive Vice President for Academic Affairs and Diversity  
From: Patrick Wolfe, Frederick L. Hovde Dean *Patrick Wolfe*  
Re: Nomination of Dr. Laura Pyrak-Nolte for a Distinguished Professor of Physics and Astronomy

I forward to you the nomination of Dr. Laura Pyrak-Nolte for a Distinguished Professor of Physics and Astronomy. Dr. Pyrak-Nolte's nomination has been endorsed by the Department, the College of Science's Area Promotion Committee and a university committee of distinguished professors. A report from the university committee is attached, along with the Form 36, both a full vita and bio sketch plus letters from external referees.

Prof. Pyrak-Nolte is recognized as the world's leading expert on the acoustic, mechanical, and transport characteristics of porous and fractured media. Her work is recognized for the elucidation of the process and interactions that exist between these mechanisms. Her research thrust has led to novel ways to reveal how seismic waves can be utilized to characterize fractured rock masses and how the fractured medium affects the propagation of the seismic waves. Prof. Pyrak-Nolte's work is simultaneously theoretical, experimental and numerical making it both fundamental in nature as well as applicable to many current societal needs such as ground water flow, resource recovery, disposal of wastes and carbon sequestration to mitigate global climate change, to name a few. In addition to her work in understanding the propagation of elastic waves across fractures, she is recognized for the identification of a scaling law between stiffness and flow through fractures and the physics of the flow of miscible and immiscible fluids through fractures.

I most strongly endorse the nomination of Dr. Laura Pyrak-Nolte as a Distinguished Professor of Physics and Astronomy.

RECOMMENDED APPROVAL:

APPROVED:

*Jay Akridge*      12/19/17  
\_\_\_\_\_  
Jay Akridge      Date  
Provost and Executive Vice  
President for Academic Affairs and Diversity

*M E Daniels, Jr.*      1/3/18  
\_\_\_\_\_  
Mitchell E. Daniels, Jr.      Date  
President



College of Science

Mathematical Sciences Building ▪ 150 N. University Street ▪ West Lafayette, IN 47907-2067  
(765) 494-1730 ▪ Fax: (765) 494-1736 ▪ ScienceDean@purdue.edu ▪ www.science.purdue.edu

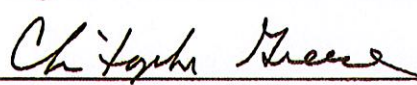
November 20, 2017

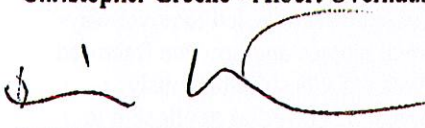
To: Patrick J. Wolfe, Frederick L. Hovde Dean

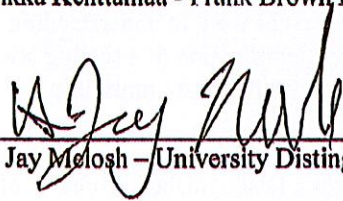
From: Ad hoc Committee of Distinguished Professors

We are pleased to strongly endorse the candidacy of Dr. Laura Pyrak-Nolte for the distinction of Distinguished Professor of Physics and Astronomy, for her sustained excellence in scholarship, leadership and scientific impact. Her research spans the boundary between applications, such as fracking, and a fundamental research into, for example, the physics behind earthquakes.

  
 Jean Chmielewski - Alice Watson Kramer Distinguished Professor - Organic Chemistry/Chemical Biology

  
 Christopher Greene - Albert Overhauser Distinguished Professor of Physics and Astronomy

  
 Hilikka Kenttämä - Frank Brown Distinguished Professor - Analytical Chemistry and Organic Chemistry

  
 H. Jay Melosh - University Distinguished Professor of Earth, Atmospheric, and Planetary Sciences

  
 Kumares Sinha - Edgar B. and Hedwig M. Olson Distinguished Professor of Civil Engineering



College of Science

Mathematical Sciences Building ▪ 150 N. University Street ▪ West Lafayette, IN 47907-2067  
 (765) 494-1729 ▪ Fax: (765) 494-1736 ▪ [www.science.purdue.edu](http://www.science.purdue.edu)