



VILLANOVA UNIVERSITY
**MECHANICAL ENGINEERING
DEPARTMENT**

Fall 2019 SEMINAR SERIES

Seminar Date: October 25th, 2019

Lecture: Overview of Thermal Transport Processes Program at NSF

Speaker: Dr. Ying Sun

Program Director, Thermal Transport Processes, National Science Foundation

Abstract: This talk will first highlight the vision of the National Science Foundation and the organization and goals of the Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET) within the Engineering Directorate at NSF. The scope and outlook of the Thermal Transport Processes Program will then be discussed along with project highlights. Several Transport Phenomena cluster-wide solicitations and interagency initiatives relevant to the heat/mass transfer community will be introduced. Insights from the implementation of the “no deadlines” open submission policy for the unsolicited proposals will be discussed. Finally, a few of cross-cutting and/or Foundation-wide programs and initiatives, including CAREER, CSSI, GCR, CDS&E, NSF Big Ideas, will be introduced.

Biography:



Dr. Ying Sun, PhD.

Dr. Ying Sun is the program director of the Thermal Transport Processes Program at the National Science Foundation. She is a Professor in the Department of Mechanical Engineering and Mechanics at Drexel University. Her research interests include multiscale modeling of transport phenomena in energy systems and advanced manufacturing, micro/nano-scale two-phase heat transfer, complex fluids physics, and other areas of multiphase flow and heat/mass transport. Dr.

Sun has authored over 70 refereed publications and delivered over 80 invited talks. She was a recipient of the NSF CAREER Award (2008), AFOSR Summer Faculty Fellowship (2011), French CNRS Visiting Professorship (2015), and Drexel College of Engineering Research Achievement Award (2018). Dr. Sun was an ELATE Leadership Fellow and a visiting professor at Princeton University, Ecole Polytechnique, and Tsinghua University. She currently serves as the K-15 Committee Chair of the ASME Heat Transfer Division, Associate Editor for *the ASME Journal of Electrochemical Energy Conversion and Storage*, and Chair of *the 4th Gordon Research Conference on Micro and Nanoscale Phase Change Phenomena*. Dr. Sun received her B.Eng. degree from Tsinghua University and the M.S. and Ph.D. degrees from the University of Iowa.

Host: Prof. Calvin Li