Friday, October 25: 9 – 10:30 am, LAWS 1142. Open Research Event

Title: Scientific Reproducibility: Opportunities and Challenges for Open Research Data and Code
Speaker: Victoria Stodden, Columbia University
Sponsor: Co-sponsored by Purdue Libraries and the Cyber Center in Discovery Park

[Note: This event will commence with the presentation of an Open Access (Research) Award by Dr. S. Laurel Weldon, Interim Vice Provost for Faculty Affairs. It will be presented this year to Dr. Mark S. Lundstrom, Don and Carol Scifres Distinguished Professor of Electrical and Computer Engineering and founding director of the Network for Computational Nanotechnology (NCN). The award is presented in recognition of Dr. Lundstrom's leadership in creating NanoHUB, a radical departure from traditional forms of scholarly communication in nanotechnology with a strongly open access character. Annually, nearly 250,000 users in 172 countries access over 3,000 resources from more than 1,000 authors for research and education, including over 250 simulation tools. After the presentation, James L. Mullins, Dean of Libraries, will introduce the speaker.]

Abstract: It is now widely recognized that the traditional published article is insufficient to permit verification of computational results. The emergence of powerful computational hardware combined with vast data collection and storage capabilities presents many novel opportunities for researchers. Unfortunately current standards for communication of published computational findings make verification and validation next to impossible. A movement toward reproducible research – dissemination that includes sufficient experimental details such that results can be replicated by others in the field, i.e. the code and the data – has developed in many disciplines and research areas to address this shortcoming in research communication. In this talk Dr. Stodden will explore the problem and address solutions emerging from researchers and institutions, federal policy efforts, and journal publication standards.

Bio: Victoria Stodden is an assistant professor of Statistics at Columbia University whose research centers on the multifaceted problem of enabling reproducibility in computational science. This includes studying adequacy and robustness in replicated results, designing and implementing validation systems, developing standards of openness for data and code sharing, and resolving legal and policy barriers to disseminating reproducible research. Her work has resulted in platforms and tools such as SparseLab, RunMyCode.org, and the Reproducible Research Standard. Stodden is a member of the National Science Foundation's Advisory Committee on Cyberinfrastructure, the Mathematics and Physical Sciences Directorate Subcommittee on Support for the Statistical Sciences at NSF, the National Academies of Science committee on Responsible Science: Ensuring the Integrity of the Research Process, and several committees in the American Statistical Association. She completed her PhD in Statistics and her law degree at Stanford University, and her Erdös Number is 3.