



**2018 HiPerGator Symposium**  
**Tuesday, October 16, 2018**  
**9:00 a.m. – 2:00 p.m.**  
**Hosted by: The UF Informatics Institute**

2018 marks the fifth anniversary of HiPerGator, UF's supercomputer for research. This symposium's focus is to bring HiPerGator users from across campus together to showcase their research in a broad variety of disciplines, share their experience and results, and foster communication and collaboration among HiPerGator users.

The symposium consists of 14 ten-minute lightning presentations, a poster session, and luncheon for the participants with attending faculty and staff.

# Program Agenda

- 9:00AM** Welcome, Introduction  
*Erik Deumens, UFIT Research Computing*
- 9:15AM** Intelligent platform: Creating intelligence to empower researchers in diverse disciplines  
*Andy Li, Herbert Wertheim College of Engineering*
- Deciphering how the human milk metabolome contributes to pediatric obesity  
*Dominick Lemas, College of Medicine*
- Deploying bioinformatics services through object-oriented analysis pipelines  
*Alberto Riva, Interdisciplinary Center for Biotechnical Research*
- Genome-enabled prediction of bull fertility in US Jersey cattle  
*Fernanda Rezende, College of Agricultural and Life Sciences*
- Molecular dynamics simulations of grain boundary yielding behavior  
*Bryan Kuhr, Herbert Wertheim College of Engineering*
- Gravitational lens modeling of high-redshift galaxies with MCMC approach  
*Chenxing Dong, College of Liberal Arts and Sciences*
- Fusion of intelligent transportation systems and bridge information modeling  
*Alireza Adibfar, Rinker School of Construction Management*
- 10:45AM** **Break**
- 11:00AM** Accelerating protein-polymer dynamics on GPU architectures  
*Farhad Ramezanghorbani, College of Liberal Arts and Sciences*
- Modelling lateral viscosity variations in Earth's mantle  
*Marie Thomas, College of Liberal Arts and Sciences*
- Identifying drivers of freshwater ecological degradation at the continental scale  
*Rafael Muñoz-Carpena, Institute of Food and Agricultural Sciences*
- Genomic prediction of service sire fertility in U.S. dairy cattle  
*Juan Pablo Nani, College of Agricultural and Life Sciences*
- Genome wide analysis to identify common genetic variants of high blood pressure  
*Nihal Rouby, College of Pharmacy*
- Effects of sustainability and asymmetry on managing multiple natural resources  
*Woi Sok Oh, Herbert Wertheim College of Engineering*
- The third generation is here: single molecule, long read sequencing in gene discovery  
*Christine Bruels, College of Medicine*
- 12:30PM** Luncheon for Participants and Registered Attendees  
Poster Session
- 2:00PM** 2018 HiPerGator Symposium Ends