

• FELLOWS SOCIETY •



FOOD FOR THOUGHT | NETWORKING



FELLOWS SOCIETY VIRTUAL RESEARCH SHARING | FALL 2020 12:00 PM - 1:30 PM Friday, October 9

Registration Link: <https://fla.st/2ZOELHf>
For more information visit: fellowssociety.fsu.edu



O'Juan Edwards, *Higher Education*

How Black Feminist Thought Addresses Issues of Health Care and HIV/AIDS Prevention for Black women

The infectious disease known as HIV/AIDS is increasing within the African American community. Black women are highly affected by the virus. There are various reasons why African American women are living with HIV/AIDS. Some African American women are not adequately informed on preventing the virus from entering their body. I will explore the history regarding Black Feminist Thought and intersectionality. I will discuss lynching, rape, and black women's bodies, and Black female sexual practices. Additionally, I cover my possible solution of a healing process and the importance this particular issue has on higher education.

Siddhartha Bishnu, *Computational Science*

Visualization of Geophysical Waves and Tides

The development of any ocean model warrants a suite of verification exercises for testing its numerical implementation. This motivated me to design a set of shallow water test cases including dispersive and non-dispersive geophysical waves and tides for testing the various terms of the momentum equations, derived from Newton's second law of motion. Every verification exercise has been performed with the United States Department of Energy's Model for Prediction Across Scales -- Ocean, an unstructured ocean model with variable resolution capability. I believe demonstrating these visualizations in addition to the mathematical analysis of waves and tides in graduate level courses in physical oceanography can provide students with a higher level of appreciation for these amazing geophysical phenomena.



Stacy Ashlyn, *Mechanical Engineering*

Robotic Penguins and Assistive Devices

Assistive robotics, such as medical exoskeletons for paraplegics, could revolutionize the way that people overcome mobility impairments. However, these types of technology require an understanding in how to traverse different terrains so that the robotic devices can be used in a real-world setting. My research addresses the ways in which bipedal walkers stabilize on varying terrain types. Primarily, my work focuses on penguins and their ability to move across slippery surfaces. Kindie Hon, my research assistant, will discuss how different penguin species adapt to their terrain type. I will cover how her findings will help in selecting an appropriate subject for experimental studies, and how we will use the experimental insights to develop a bipedal robot controller.