



Graduate Certificate in Computational Science & Engineering

SPRING COLLOQUIUM 2023

Wednesday, April 26, 1:00 PM - 4:30 PM
Convocation Room, 113 Friend Center, Olden Street

- 1:05-1:10 pm** **Welcome Remarks**
Professor Michael Mueller, Director, Graduate Certificate in Computational Science & Engineering and Professor of Mechanical and Aerospace Engineering
- 1:10-1:30 pm** **Cristian Lacey**, *Mechanical and Aerospace Engineering (Advisor: Prof. Michael E. Mueller)*
“Computationally Efficient Data-Enhanced Manifold Modeling of Multi-Modal Turbulent Combustion”
- 1:30-1:50 pm** **Anvitha Sudhakar**, *Mechanical and Aerospace Engineering (Advisor: Prof. Andrej Kosmrlj)*
“Computational Modeling of Shape Development in Morphing Structures”
- 1:50-2:10 pm** **Rory Conlin**, *Mechanical and Aerospace Engineering (Advisor: Prof. Egemen Kolemen)*
“Numerical Methods for Stellarator Optimization”
- 2:10-2:30 pm** **Edvard Bruun**, *Civil and Environmental Engineering (Advisor: Prof. Sigrid Adriaenssens)*
“Applications of Cooperating Robots for Scaffold-free Construction”
- 2:30-2:50 pm** **Break**
- 2:50-3:10 pm** **Haina Wang**, *Chemistry (Advisor: Prof. Salvatore Torquato)*
“Rare-Event Hole Statistics in Fluids and Crystals Via Biased Sampling”
- 3:10-3:30 pm** **Bingjia Yang**, *Chemistry (Advisor: Prof. Roberto Car)*
“First-Principles Path-integral Molecular Dynamics Study of Ferroelectricity and Isotope Effects in KDP Crystals with Deep Neural Networks”
- 3:30-3:50 pm** **Hang Zhang**, *Chemistry (Advisor: Prof. Michael A. Webb)*
“Molecular Dynamics Investigation of Polymer Contact Charging Driving Force”
- 3:50-4:10 pm** **Srijan Bharati Das**, *Geosciences (Advisor: Prof. Jeroen Tromp)*
“Numerical Optimization in Helioseismology and Asteroseismology to Infer Internal Flow and Magnetism”
- 4:10-4:30 pm** **Reception**, *Convocation Room, 113 Friend Center, Olden Street*



Cristian Lacey

Anvitha Sudhakar

Rory Conlin

Edvard Bruun

Haina Wang

Bingjia Yang

Hang Zhang

Srijan Bharati Das

For more information about the Graduate Certificate in Computational Science & Engineering, visit
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