The School of Natural Sciences
Presents
Undergraduate Physics Research Symposium, Session 1
Graduating seniors from the physics program

Friday, April 29, 2022
10:30 – 12:00
COB1 Room 113 (Classroom Building) and remotely via
https://ucmerced.zoom.us/j/82652263820?pwd=RmgyeXh2aFVZTDdkb0Y4d3Q2WEc3QT09&from=addon

Talk times are approximate.

10:30-10:42
*Developing a finite-temperature exchange-correlation approximation via the generalized thermal adiabatic connection*
Zachary Mauri, Brittany Harding, Aurora Pribram-Jones

10:43-10:55
*Sensing single charges with quantum dot molecules*
Zachary von Jena, Michael Scheibner

10:56-11:08
*Using Monte Carlo simulations to understand cargo transport by multiple kinesins*
Donovan Bercasio, Jing Xu

11:09-11:21
*Classification of Discrete Random Walks Utilizing Machine Learning*
Fernando Espinoza-Ortiz, Chih-Chun Chien

11:22-11:34
*Towards practical models for correcting artificial symmetry breaking in cases with more than one spin-contaminant*
Jonathan Loera, Jorge Vasquez, Hrant Hratchian

11:35-11:47
*Bacterial motility across a gradient of Newtonian and non-Newtonian fluids*
Radoslav Iliev, Bin Liu

Note: Session 2 will take place on Friday, May 6 at 10:30 am. Six more graduating physics majors will present their research: 10:30: Adrian Sanchez Magana; 10:43: Nolan Kelly; 10:56: Demitrius Zulevic; 11:09: Elsa Vazquez; 11:22: Calista Lum; 11:35: Karla Leon-Aguilar

For additional info contact Prof. Brian Utter brianutter@ucmerced.edu