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

## Friday, May 3<sup>rd</sup>, 2024 9:30AM – 11:30AM Granite Pass 135 and remotely via

https://ucmerced.zoom.us/i/82136215182?pwd=bXdIK3Y5OStBdmJUbnFkbG4zUIQ3QT09&from=addon

9:30am-9:42am Distributions of [Fe/H] & [a/Fe] in FIRE-2 Milky Way-Mass Galaxies Simulations Hamad Afzal, Sarah Loebman

9:42am-9:54am Understanding and Retention of Physics Concepts for Life Science Majors Thomas Aguayo, Brian Utter

9:54am-10:06am *Tracking Periodic Defect Stretching in Active Nematics* Mark Elias, Kevin Mitchell

10:06am-10:18am *Creating a Standard Model for the SCG* Aaron Fuentes, Brian Utter / Antoinette Stone

10:18am-10:30am *Exploring Low Mass & Temperature White Dwarfs* Izaiha Martinez, Sarah Loebman

10:30am-10:42am *Effects of Heat Flows on Quantum Dot Structure Formation in Liquid Crystal* Nicholas McCarten, Linda Hirst

10:42am-10:54am *The Radcliffe Wave on FIRE: Hunting for Sinusoidal Gas Structures in Simulated Milky Way Disks* Biviana Oseguera, Sarah Loebman

10:54am-11:06am *Fano Rotations in Coupled Quantum Dots* Derrick Pickrel, Michael Scheibner

11:06am-11:18am *The Electride Nature of Beryllium Under Pressure* Mark Serrata, David Strubbe

11:18am-11:30am Statistical Analytics of Stochastic Processes and Evolution of Positional Entropy Distributions of 2-D Random Walk Ensembles James Ticer, Dr. J. E. Sharping

For additional info contact Prof. Lin Tian <a href="https://www.ucmerced.edu">https://www.ucmerced.edu</a></a>