**The School of Natural Sciences   
Presents**

**Undergraduate research symposium**

**Graduating seniors from the physics program**

**Friday, May 10, 2019**

**10:30 - Noon  
COB2 170**

**Time:10:30-10:42**

**Title:** ***An Analysis of an Active Nematic System using Topological Entropy***

**Authors: Ulyses Alvarado Olvera, Kevin Mitchell, Linda Hirst**

**Time:10:42-10:54**

**Title:** ***Creating Quantum Dots through applied strain***

**Authors: Harrison Mausolff, David Strubbe**

**Time:10:54-11:06**

**Title:** ***Simulations and machine learning of Random Walk with Poisson-distributed step size***

**Authors: Steven Nguyen, Chih-Chun Chien**

**Time:11:06-11:18**

**Title:** ***Simulation and machine learning of Random Walk with time dependence probability***

**Authors: Tony Nguyen, Chih-Chun Chien**

**Time:11:18-11:30**

**Title:** ***Droplet Retention and Marangoni Forces***

**Authors:** **Joshua Roe, Dustin Kleckner**

**Time:11:30-11:42**

**Title:** ***Spin Contamination and Spin Projection using Modified Clebsh-Gordon Algebra***

**Authors:** **Yogev Gluzman, Hrant Hratchian**

**Time:11:42-11:54**

**Title:** ***Diffusive searches by DNA binding proteins in the presence of gene antennae***

**Authors:** **Angel Rubalcava, Ajay Gopinathan**

**For additional info contact Prof. Jay Sharping** [**jsharping@ucmerced.edu**](mailto:jsharping@ucmerced.edu)