



Syracuse University Physics Department  
Undergraduate Research Day

November 4<sup>th</sup>, 2017

# PROGRAM



**9:00 Registration, Breakfast, and Poster Session**

**10:30 Welcome: Prof. Jack Laiho**

**SYRACUSE FACULTY/POSTDOC TALKS**

**10:45 Prof. Lisa Manning**

**11:15 Prof. Denver Whittington**

*Experimental particle physics at Syracuse University*

**11:45 Prof. Duncan Brown**

*New results from LIGO/VIRGO*

**12:15pm LAB TOURS**

- **LIGO and Gravity Wave Detection**
- **Superconducting Device Research Lab – Plourde group**
- **LHCb High Energy Particle Physics**
- **Soft Condensed Matter Experiment – Paulson group**

**1:15pm – 2pm LUNCH**

**POSTERS**

**Alex Davie (University of Buffalo)**

*Phase Transition Characterization of Molecular Crystal Phonons*

**Malakia Takane (St. Lawrence University)**

*High Resolution Polarization Imaging of Nacre in Iridescent Shells*

**Lauren Mayse (Syracuse University)**

*Osmotic Stress-mediated Partitioning of Polypeptides into a Protein Nanopore*

**Christopher Kane (Syracuse University)**

*Studying the Puzzle of the Pion Nucleon Sigma Term*

## STUDENT TALKS

- 2:00 Meghan Lentz (Syracuse University)** – *Floquet Formalism and Perturbation Theory in the Low-Frequency Limit*
- 2:15 Gregory Walsh (Syracuse University)** – *Searching for single pulses using Heimdall*
- 2:30 Claire Albrecht (St. Lawrence University)** – *Detection of magnetic biomarkers using a single giant magneto-impedance microwire*
- 2:45 Nolan Smith (Colgate University)** – *Fuzzy cold dark matter*
- 3:00 Patrick Miles (Syracuse University)** – *Simulating Saturn’s Rings: The N-Body Problem in Computational Physics*
- 3:15 – 3:45 Coffee Break**
- 3:45 Tri Nguyen (University of Rochester)** – *Baryon Acoustic Oscillations – The Study of Large-scale Structure of the Universe*
- 4:00 Jordan Barrett (Syracuse University)** – *The Dynamics of Thin Elastic Sheets on Liquid Interfaces*
- 4:15 Jack Gugel (Syracuse University)** – *Energetics and Kinetics at the Protein-Detergent Interface*
- 4:30 – 5:00 Biophysics Lab Tour – Movileanu Lab**