

# Physics Department

## Olin Hall 107

**9:30am**

**Terahertz Time Domain Spectroscopy for Characterizing Properties of Carbon Nanotube Yarns**

Natalie Frey

Advisor: Kateryna Friedman, Lyubov Titova

**9:45am**

**Laboratory Gas Phase Molecular Spectroscopy**

Valerie Bennett

Advisor: Douglas Petkie

**10:00am**

**Simulation and Characterization of Silicon Nitride Photonic Integrated Circuits**

Maximillian Hubbard, Charlie Tribble

Advisor: Douglas Petkie

Co-Advisors: James Eakin (LEAP),

Eoghan Gallagher (LEAP)

Sponsors: Spark Photonics, Small Business Innovation Research Program

**10:15am**

**Investigating Fetch-Limited Wave Growth in The Coastal Alaskan Arctic**

Michelle Sangillo

Advisor: Nancy Burnham

**10:30am Break**

**11:00am**

**Developing an X-ray Fluorescence System for use in Developing Countries and Determining its Minimum Detectable Limits of Lead and Uranium**

Kylar Coleman-Foley

Advisor: David Medich

Co-Advisor: Peter Hansen (IGSD)

**11:15am**

**Explorations in Modified Gravity and Dark Matter Energy**

Alexandra Spezzano

Advisor: Germano Iannacchione

**11:30am**

**3D Image Reconstruction of a Fossil Using Neutron Tomography**

Isaac Benjamin, Scarlett Clarke (MA)

Advisor: David Medich, Vadim Yakovlev (MA)

Sponsor: Paul Scherrer Institute

**11:45am**

**Electromagnetic Simulations for the He6-CRES RF System**

Luciano Malavasi

Advisor: David Medich