Eleventh Annual
Department of Physics Undergraduate Research Symposium
University of Illinois at Urbana-Champaign

January 27, 2012
2:00-6:00 pm
Room 141, Loomis Lab of Physics
1110 West Green Street, Urbana, Illinois

2:00–2:05  Welcome, Laura H. Greene, Swanlund Chair and Center for Advanced Study Professor of Physics

2:06–2:18  Matthew Feickert, Study of c-jet Tagging in the $H \rightarrow WW \rightarrow ℓνqq$ Decay Channel at the ATLAS Detector, Adviser: Mark S. Neubauer


2:34–2:46  Yizhou Xin, Determining Supernovae Search Efficiency Using the Image Analysis Pipeline, Adviser: Mats Selen

2:46–2:58  Thomas Hymel, Strengthening Carbon Nanotube Fibers via Joule Heating, Adviser: Alexey Bezryadin

3:00–3:12  Michael Skulski, Calibration of the Mu2e Spectrometer Using Positrons from the $π^+ \rightarrow e^+ ν_e$ Decay, Adviser: George D. Gollin

3:30–3:45  **BREAK, Loomis Foyer**

3:48–4:00  **Atanas Stankov**, *Neurexin 1 beta binding to LRRTM/Neuroligin in Neurons*, Adviser: Thomas Sudhof (Stanford University)


4:16–4:28  **Suerfu**, *Downstream Injection of Calibration Electrons for the Mu2e Experiment at Fermilab*, Adviser: George D. Gollin

4:30–4:42  **Jacob Ruf**, *Constructing an Apparatus to Study Pressure-Tuned Quantum Phase Transitions in Charge-Density Wave Materials*, Adviser: Peter Abbamonte

4:44–4:56  **Maurice Lee**, *Image Analysis to Quantify mRNA in Cells*, Adviser: Taekjip Ha


5:12–5:24  **Kevin Coughlin**, *The Superconducting Proximity Effect in Topological Insulators*, Adviser: Laura H. Greene

5:26–5:38  **Conrad Foo**, *Magnetotransport characterization of phosphorus-doped single-crystal EuFe$_2$As$_2$*, Adviser: Wai-Kwong Kwok (Argonne National Laboratory)

5:40–5:52  **John Nichols**, *Theoretical and Experimental Comparison of Pressure in a Standing Wave Tube with Attenuation*, Adviser: Steven M. Errede

5:54–6:06  **Will Parkin**, *Straw-Drift-Tube Studies for the Mu2e T-Tracker*, Adviser: Vadim Rusu (Fermi National Accelerator Laboratory)

6:08–6:10  **Closing Remarks**