

UNL Department of Physics and Astronomy presents:

## Laser Driven Accelerator-on-a-chip

PRESENTED BY  
**PIETRO  
MUSUMECI**  
**UCLA**



**THURSDAY**  
**FEBRUARY 16**  
**4:00 PM**  
**IN JH 136**

Refreshments will be served in the JH 1st Floor Vending Area at 3:30

### ABSTRACT

Acceleration of particles in photonic nanostructures fabricated using semiconductor manufacturing techniques and driven by ultrafast solid state lasers is a new and promising approach for developing future generations of compact particle accelerators. Substantial progress has been made in this area in recent years, fueled by a growing international collaboration of universities, national laboratories, and companies. We'll review the major results as well as the outlook for the near term and long term future of this high gradient acceleration scheme.