

Jonathan Mueller

“Jon”



Graduate Institution: Duke University

Location: Durham, North Carolina

Graduate Discipline: Nuclear Physics

Hometown: Sudbury, Massachusetts

Research Interests:

My primary research focus is investigating photoneutron angular distributions and their potential applications to detecting fissionable isotopes in cargo containers. This work involves measuring and understanding (gamma, n) angular distributions and prompt neutron angular distributions from the (gamma, fission) reaction. Other research interests include a potential fusion reactor based on the B-11 (p, alpha) reaction, determining characteristics of the neutrino via neutrinoless double electron capture, and investigating correlations and spectroscopic factors of Calcium isotopes as one approaches the neutron drip line.

About me:

I am currently working with the Capture group at Duke University, led by Prof. Henry Weller and Prof. Mohammad Ahmed. I graduated as a Valedictorian from Washington University in St. Louis in 2009, with a B.S. in Physics, Mathematics, and Economics. During my time at Washington University, I was awarded a Greg Delos Fellowship and an Antoinette Frances Dames Award, and upon arriving at Duke I was awarded a James B. Duke Fellowship. I am a member of Sigma Xi and Sigma Pi Sigma.

Outside of physics, I enjoy learning about programming and watching a variety of sports, including basketball and football. I also enjoy playing basketball, racquetball, and ultimate frisbee.



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