



## **Physics Colloquium**

Friday, April 1, 2011, 4:00 pm, **PS 1072**

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### *The Zero Momentum Spot: Low-momentum Particles in Velocity Map Imaging*

The use of velocity map imaging has led to many discoveries in molecular dynamics. The goal of the project described in this paper is to determine the origin and nature of particles with little or no momentum that are imaged onto the detector. Experiments were conducted with several gases under varying conditions to gain more insight into the nature of the spot. Further testing indicates that the particles are evidently part of the residual gases remaining in the chamber after the laser pulse, which are ionized due to the electric field of the spectrometer.