## **Physics Colloquium**

## **Michigan Technological University**

Thursday, February 14, 2013 at 4:00 pm Room 139 Fisher Hall



Exploring the High Energy Universe with VERITAS

## Ester Aliu Barnard College

Partially sponsored/funded by the Visiting Women & Minority Lecturer/Scholar Series

**Abstract:** Gamma-ray studies provide a critical tool in our search for the origin of cosmic rays. Sensitive observations between 100 MeV to almost 100 TeV with instruments like Fermi-LAT, HESS, MAGIC, VERITAS and MILAGRO, have transformed our understanding of the high energy Universe. Different types of extragalactic and galactic sources have been detected, showing a variety of interesting phenomena that are boosting theory in high energy astrophysics. Here I will summarize some of the scientific highlights obtained up to now with the VERITAS telescopes above 100 GeV.

**Bio:** Dr. Aliu received her Ph.D. in 2007 from Universitat Autònoma de Barcelona and the Institut de Física d'Altes Energies (IFAE) and has been with Barnard College since 2009. Her research involves experimental high-energy astroparticle physics and center around the VERITAS experiment that use gamma-rays as probes of the non-thermal Universe.