

# Departments of Physics and Math Colloquium

Searching for Physics Beyond the Standard Model with the CMS Experiment at the LHC

**Dr. Eva Halkiadakis**

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**Friday, February 20, 2015**

**1:30 – 2:30 PM**

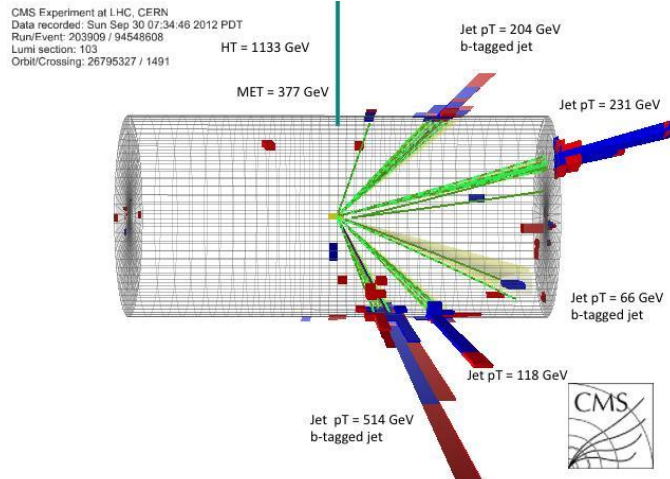
**Venue: AHC3-214, MMC**

**Refreshments will be served at 1:15 PM**



**Abstract:** The Large Hadron Collider (LHC) has had a successful Run

I. It provided the highest energy proton collisions to-date to the experiments, at a center-of-mass



energy of 8 TeV. In 2012, the observation of a new Higgs-like boson was announced to the world. There is also an extensive program at the LHC to search for physics beyond the Standard Model. I will give an overview of the status of such searches at the LHC, with a special focus on the CMS experiment and on searches for Supersymmetry, a theory that predicts a symmetry between matter and forces and provides a promising candidate for dark matter.

**Biography:** Dr. Eva Halkiadakis is an Associate Professor of Physics at Rutgers, the State University of New Jersey. She is an experimental particle physicist and is a member of the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider (LHC) at the CERN laboratory in Switzerland. Her recent research focuses on searching for new physics at the LHC, with a special emphasis on searches in "multi-jet" signatures. She served as the CMS Supersymmetry Physics Group co-convenor from 2012-13. She received her Ph.D. from Rutgers University in 2001 and was subsequently a postdoctoral researcher with the University of Rochester before joining the Rutgers faculty in 2006.

*The event is free and open to the public.*

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