## Boston University Physics Colloquium



## XENON Detector for Dark Matter

A variety of experiments attempt to find out what the Dark Matter that fills our Universe is made of, resulting in a vibrant field of research. This talk will review what we know (or do not know) about the nature of Dark Matter, before introducing the basic principles for its direct detection in laboratory-scale detectors, focusing on Weakly Interacting Massive Particles (WIMPs). The XENON experimental program will then be presented together with the current status and data from XENON100. The future prospects for the field with the XENON1T phase will be summarized.

## Elena Aprile Columbia University

December 4, 2012 (Tuesday) at 3:30pm (Refreshments at 3:00pm) SCI 109, Metcalf Science Center, Boston University Call: Winna Somers (wsomers@bu.edu) (617) 353-9320 Host: Rama Bansil, So-Young Pi