Postdoctoral Research Associate in Astroparticle Physics
at Purdue University, Indiana, USA.

The Dark Matter group at Purdue University invites applications for a post-doc position to participate in the XENON Dark Matter search. The XENON100 detector has been searching for Dark Matter at the Gran Sasso Underground Laboratory in Italy since 2009 and places the world’s most stringent limits on WIMP Dark Matter interactions. Its successor XENON1T is currently in the design phase, with commissioning planned for 2014, also at the Gran Sasso laboratory.

Experiments are being performed at Purdue to investigate the technology and operation of liquid xenon detectors. Primary questions concern the calibration of large-scale liquid noble gas detectors and the properties of liquid xenon as a detection medium. The appointee will play a leading role in designing the calibration systems of XENON1T, analyzing data from the XENON100 experiment, and the liquid xenon experiments performed at Purdue.

A PhD in physics is required. Experience with Dark Matter search experiments, liquid noble elements, low-background techniques, statistical methods, data analysis and Monte Carlo simulations, particularly experience with the ROOT and GEANT4 frameworks, will be advantageous.

Applicants should provide a statement of research interests, a curriculum vitae with list of publications, and arrange for three letters of reference to be sent directly. Applications, and the letters of reference should be directed to Dr. Rafael Lang, c/o Emjai Gregory, Purdue University, Department of Physics, 525 Northwestern Avenue, West Lafayette, Indiana 47907, USA preferably via email, egregor@purdue.edu. For full consideration, completed applications including letters of reference should be received by Friday, September 28, 2012. Applications received after that date will be considered until the position is filled. Purdue University is an Equal Opportunity Affirmative Action Employer fully committed to achieving a diverse workforce.