## Joint Institute for Nuclear Astrophysics

## Indiana Expos – Fall 2013



Sponsored the College of Science, JINA scientists joined other members of ND Physics and Chemistry Departments to participate in Celebrate Science Indiana (CSI) on September 8th, 2013 at the Indianapolis Motor Speedway. The goals of JINA were to promote nuclear astrophysics through hands-on activities. More than 800 children, parents, and educators learned about the physical sciences and current research at the Notre Dame exhibit.

JINA had a variety of activities for all ages. There were coloring and activity sheets available for the youngest attendees, and nuclear astrophysics activities for older attendees. A transparent Geiger Counter was connected to a data logging laptop to allow participants to explore radiation with Fiestaware. A model particle detector used iron filings and both regular and magnetic marbles to demonstrate how nuclear scientists detect charged and neutral particles. A light spectroscopy activity utilized the APS SpectraSnapp mobile application to allow attendees to analyze a variety of light sources present. Materials were also available for attendees to build their own spectroscope. A local PAN student also volunteered with JINA, as part of a larger effort to immerse students into different roles of scientists and to learn by teaching.

Michiana Science and Technology Center, Inc (MSTCi) is a growing organization in South Bend, IN with the long-term goal of creating a STEM center focused on the roles of STEM studies in a variety of local careers. While the location is being secured, MSTCi is holding a series of expos, the latest explicitly on careers. JINA representatives guided attendees through three activities, including a "prize wheel" that students could spin to learn about the different options available to physics majors. Two activities from CSI also made an appearance, the model particle detector and an absorption activity developed by Prof. Phillips.

Youth explored properties of light by shining different LEDs through gummie worms of different colors. For example, they would shine a white LED through both halves of a gummy worm to see what color(s) passed though to the other side.













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