IUPUI Department of Physics Presents:

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Getting to Know the Neighbors: Discovering New Galaxies in the Nearby Universe

Abstract: Over the past two decades, new astronomical surveys of the Local Group - the immediate neighborhood of our home galaxy, the Milky Way — have revealed the presence of dozens of low-mass “dwarf” galaxies that had previously gone undetected. Many of these objects have extreme properties that challenge our view of galaxies and how they form and evolve. In this talk, I will explain how my collaborators and I are using the Arecibo 305-meter radio observatory and IU’s WIYN 3.5-meter optical telescope to search for new galaxies. The first galaxy we discovered with Arecibo and WIYN is Leo P, the lowest-mass star-forming galaxy known. Leo P has an extremely low abundance of heavy elements, with an oxygen abundance 1/40th of the solar value. Since the discovery of Leo P, we have identified several additional dwarf galaxy candidates and are continuing to search for more. Despite being nearby, these objects were invisible until we figured out just how and where to search for them.

Thursday, April 18  
3:30 PM, LD 010  
402 N. Blackford Street

Refreshments at 3:00 PM in the Physics Conference Room, LD 154B  
For additional information, call 274-6900

Physics colloquium is scheduled for 2018-2019 academic year for every Thursday at 3:30 PM in LD 010. Changes to the schedule will be posted at www.physics.iupui.edu