



## PHYSICS & ASTRONOMY WEEKLY CALENDAR

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# WEEKLY CALENDAR

March 29, 2010

## Departmental Colloquium

**"The Double Pulsar: Tomography of Pulsar Magnetosphere and a New GR Test"**

3:40 PM, April 1, 2010  
109 Nicholson Hall

Maxim Lyutikov  
Purdue University

**Host: Jan Staff and Juhan Frank**

• *Refreshments served at 3:15 PM in 232 (Library) Nicholson Hall* •

The long awaited discovery of the binary radio pulsar system, PSR J0737-3039A/B, surpassed most expectations, both theoretical and observational, as a tool to probe general relativity, stellar evolution and pulsar theories. I will describe rich observational properties of the system, like eclipses, orbital variations in magnetospheric activity, evidence for reconnection between the rapidly changing magnetic field in the wind with the magnetospheric fields. An eclipse model also provides a quantitative measurement of relativistic spin precession and offers a new test of theories of gravity. A number of methods used in studying interaction of the Solar wind with planetary magnetospheres can be directly applied to this amazing system.

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### ANNOUNCEMENTS:

The University will be closed on Friday, April 2, 2010 due to the Good Friday holiday.  
Spring break begins April 2, 2010 thru April 9, 2010. Classes resumes Monday, April 12, 2010 at 7:30 am.