

University of Wisconsin-Milwaukee

Dept. of Physics
COLLOQUIUM

*The Impact of Pulsar Glitches
and NICER on Gravitational
Wave Searches*

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3:30 PM

Lapham Hall – Room 160

Pulsars are the rotating remnant of massive stars and are unique probes of dense matter physics. They are famous for having very precisely measured spin rates, and this spin evolves extremely regularly for most pulsars. However, young pulsars can occasionally undergo sudden spin changes, known as glitches.

In this talk, I will introduce pulsar glitches and the superfluidity model of a glitch. I will then discuss how currently detected gravitational wave transients might be due to a stellar oscillation in glitching pulsars. Finally, I will describe the NICER mission on the International Space Station and its important role in enabling gravitational wave searches through tracking the spin of young, glitching pulsars.

