

IUPUI Department of Physics Presents:

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Precision measurements of weak transition moments using interfering coherent optical interactions

Thursday,
September 14, 2017* 3:30pm,
LD 010

402 N. Blackford Street

Refreshments at 3:00 pm in the Physics Conference Room LD 154B

For additional information call 274-6900



Abstract:

Using two coherent optical excitations of an atomic transition, one may observe interference between these interactions, resulting in control of the total transition rate. This can allow for sensitive detection of weak transition moments, in a manner analogous to heterodyne detection techniques for sensitive detection of weak optical or microwave signals. In this colloquium, we will discuss recent results in measuring weak transition moments, and outline progress toward a measurement of the weak-force-induced parity non-conserving interaction, in atomic cesium.

*Physics colloquium is scheduled for 2017-18 academic year for every Thursday, 3:30 PM in LD 010. Changes to the schedule will be posted at www.physics.iupui.edu