

Physics Department Seminar

Friday April 8th, 2011

11:00 am in PhSc 105

Loop-da-Loop Acceleration (Or How I Learned 'Simple' Physics Isn't Always Simple)

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Abstract: An object traveling around a vertical circular loop (technically speaking a “Loop-da-Loop) exhibits surprisingly interesting motion. This talk will focus on both the theoretical and experimental determination of this motion. A closed form solution for the acceleration will be presented. An Arduino microcontroller in concert with a two-axis accelerometer lies at the heart of the measurement of the radial acceleration. Experimental challenges met and challenges to be met will be discussed.