

PHYSICS & ASTRONOMY WEEKLY CALENDAR

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WEEKLY CALENDAR

September 17-21, 2012

DEPARTMENTAL COLLOQUIUM

"Newton's Gedankenexperiment": Newton and Einstein, gravitation and relativity"

3:30 PM, September 20, 2012 109 Nicholson Hall

George Ford University of Michigan

Host: Robert O'Connell

• Refreshments served at 3:10 PM in 232 (Library) Nicholson Hall •

This will be an unusual sort of talk. What I will do is tell you a little bit about these two great men, who they were and what they did. My aim will be to give an impression of their place in the history of science and why what they did was important. However, at the same time, I will describe a thought experiment that will illustrate the gravitational theories of the two men.

Quantum Krispy Kreme Seminar

"On the fluctuation-dissipation theorem" George Ford

University of Michigan

3:30 PM, September 21, 2012 435 Nicholson Hall

Host: Jonathan Dowling

The roots of the fluctuation-dissipation theorem can be tracked back through Onsager, Nyquist, Einstein and perhaps beyond. However, the precisely stated quantum mechanical form first appeared in the classic paper of Callen and Welton. By now the theorem's familiarity has spawned so many versions and such a variety of terminology that it might be of interest to state the theorem once again. Having done so, I will then illustrate the theorem with a number of examples.