**Physics Seminar**

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*"The limitations of neutron star observation-based constraints on the neutron skin thickness of neutron-rich nuclei"*

Abstract

      Neutron star observations have been used to predict the neutron skin thickness of lead, and in some cases those predictions appear quite precise. However, there are several limitations on the accuracy of these predictions. Obviously, there are several systematic uncertainties which come from the neutron star observations. I will briefly describe those systematics. However, I will also focus on the more subtle (and more pernicious) data analysis issues which arise when connecting observations to the neutron skin thickness. I will then describe how lessons learned can help us judiciously combine low-energy nuclear data to get a more complete picture of our the uncertainties in the nucleon-nucleon interaction.

**Friday, July 17, 2015**

**11:00 am**

**CEBAF Auditorium**