

UNIVERSITY OF NOTRE DAME
DEPARTMENT OF PHYSICS

NUCLEAR SEMINAR

Monday, May 9

Life as a free neutron

Prof. Nadia Fomin

University of Tennessee

Neutrons have been a useful probe in many fields of science as well as an important physical system for study in themselves. Modern neutron sources provide extraordinary opportunities to study a wide variety of physics topics. One of those, neutron beta decay, is an archetype for all semi-leptonic charged-current weak processes. A precise value for the neutron lifetime is required for consistency tests of the Standard Model and is needed to predict the primordial 4He abundance from the theory of Big Bang Nucleosynthesis. The most precise experiments from the past 10 years show a significant disagreement. The state of the field will be discussed and a program for “beam” measurements of the neutron lifetime in the US will be presented.

4 pm – 5 pm
Nuclear Science
Laboratory
124 Nieuwland
Science Hall

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All interested  
persons are  
cordially invited  
to attend

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Refreshments will be
served prior to the
seminar in room 124