

PHYSICS COLLOQUIUM

Stephen Nagler
(Oak Ridge National Laboratory)

"Neuron Scattering at the Frontier"

Monday, October 15, 2007

4:00 P.M., Ronald Geballe Auditorium, A-102, PAA

Reception at 3:45 P.M. in the lobby

seminars



October 15-19, 2007

Abstract: Over the past half century, neutron scattering has emerged as an indispensable technique for understanding the structure and properties of materials of all types. Within the past year the new accelerator based pulsed Spallation Neutron Source (SNS) has begun operation at Oak Ridge. The SNS facility is open to the worldwide user community with time allocated on the basis of scientific merit. It is expected to usher in a new era for neutron scattering, and to have a tremendous impact on basic and applied science across several disciplines: biology, chemistry, condensed matter physics, and materials engineering. In this talk I will give a brief overview of the neutron scattering technique, describe the SNS and the recently upgraded continuous neutron source HFIR, and discuss some of the potential science opportunities expected over the next few years. Time permitting, detailed examples will include some recent research in low dimensional quantum magnetism, including the possible observation of orbitons on a small magnetic cluster.

INT Workshop

8:50 A.M., Rm. A-114, PAA

"New Approaches in Nuclear Many-Body Theory"

Tuesday, October 16, 2007

INT Workshop

8:30 A.M., Rm. A-114, PAA

Condensed Matter Seminar

4:00 P.M., Rm. C-421, PAT

"New Approaches in Nuclear Many-Body Theory"

Ania Claire Bleszynski, Yale

Title: *"Noise Thermometry and Electron Thermometry of a Sample-on-Cantilever System Below 1K: Towards Measurement of Persistent Currents in Normal Metal Rings"*

Wednesday, October 17, 2007

INT Workshop

8:50 A.M., Rm. A-114, PAA

Nuclear Theory Seminar

2:30 P.M., Rm. C-421, PAT

Title: *"New Approaches in Nuclear Many-Body Theory"*

Timo Lähde

Title: *"Scalar form factors, J/ψ decays, and low-energy constants in ChPT"*

Thursday, October 18, 2007

INT Workshop

8:50 A.M., Rm. A-114, PAA

Astronomy Colloquium

4:00 P.M., Rm. A-102

Title: *"New Approaches in Nuclear Many-Body Theory"*

Bill Bottke, Southwest Research Institute (Boulder, Colorado)

Title: *"New views on the Lunar Late Heavy Bombardment"*

Friday, October 19, 2007

Particle Astrophysics Seminar

3:30 P.M., Rm. A-110

"Neutrino Discussion Group"

INT Workshop

8:30 A.M., Rm. A-114

Title: *"New Approaches in Nuclear Many-Body Theory"*