

PHYSICS COLLOQUIUM, partially funded by the GSFEI

LARRY SORENSEN

University of Washington, Department of Physics

“LEARNING HOW MAGNETS FORGET: TRUTH FROM SPECKLE”

Monday, April 19, 2004

4:15 P.M., Ronald Geballe Auditorium, A-102, PAA

Reception at 4:00 P.M. in the lobby

**SEMINARS**  
April 19-23, 2004

**Abstract:** What is the microscopic origin of magnetic hysteresis, and how can we study it experimentally? In this talk, I will explain how we have been able to use coherent x-rays to generate magnetic speckle patterns, and how we have been able to use these speckle patterns to study the detailed evolution of the magnetic domains versus the applied magnetic field history. I will explain the failings of the best current microscopic theories, and I will suggest how they can be repaired.

Tuesday, April 20, 2004

**Condensed Matter Seminar**

4:00 P.M., Rm. C421, PA

Argyrios Tsolakidis, Harvard

“OPTICAL RESPONSE OF FINITE SYSTEMS VIA TDDFT”

Thursday, April 22, 2004

**EPE Seminar**

4:00 P.M., Rm. C421, PAT

Gordon Watts, UW Physics

“RECENT RESULTS FROM D0”

**Astronomy Colloquium**

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

Dr. Marc Claussen, NRAO

“HIGH ANGULAR RESOLUTION OBSERVATIONS OF THE BIRTH, LIFE, AND DEATH OF STARS”

Reception at 3:45 in the foyer

Friday, April 23, 2004

**Particle Astrophysics Seminar**

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

R. J. Wilkes, UW Physics

“UNO (Underground Nucleon decay and Neutrino Observatory)”

UNO is a proposed megaton-scale water Cherenkov detector which will address a broad range of fundamental physics topics, including nucleon decay lifetimes, CP violation in the lepton sector via long baseline neutrino oscillations, high-statistics millisecond-scale supernova neutrino observations, and SN relic neutrino detection. I will describe the status and future plans of the UNO Collaboration in the context of a baseline design for UNO at the Henderson Mine site in Colorado.