

PHYSICS COLLOQUIUM

(Partially Funded by the GSFEI)

Gregory R. Snow

University of Nebraska

“The Pierre Auger Observatory: Capturing Messengers from Outer Space”

Monday, October 22, 2007

4:00 PM, Ronald Geballe Auditorium, A-102, PAA

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

Abstract: A Large-aperture cosmic ray observatories are opening a new window to the cosmos. A broad-based international collaboration has come together to build the world's largest air shower detector to make an all-sky study of cosmic rays at energies above 10¹⁹ eV. As yet there are no known sources and no known mechanism for accelerating particles to the highest energies. Energy, direction, and composition measurements will illuminate the mysteries of these particles, the most energetic in nature. The southern hemisphere site of the Auger Observatory is now approaching completion in Mendoza Province, Argentina. Progress and first results will be reported, as well as plans for the northern hemisphere site.

Complementary projects (in Nebraska, Seattle, and elsewhere) which enlist high school science teachers and students in the study of extensive cosmic ray air showers will also be described.

INT Seminar

10:30 AM, Rm. C-421 PAT

Tomas Dytrych, Louisiana State University

“Toward a Unified Description of 4n N=Z Light Nuclei in the ‘ab initio’ Symplectic No-Core Shell Model”

Tuesday, October 23, 2007

INT Seminar

10:30 AM, Rm. C-421, PAT

Gergana Stoitcheva, Lawrence Livermore National Laboratory

“Auxiliary Field Monte Carlo Method for Nuclear Structure: Level Densities and Other Properties”

Particle Theory Seminar

2:30 PM, Rm. C-421 PAT

Mithat Unsal, SLAC

“Magnetic bions, duality and confinement in QCD-like gauge theories”

Condensed Matter Seminar

4:00 PM, Rm. C-421 PAT

Andreas Bauch

“Atomic Clock Development at PTB”

Wednesday, October 24, 2007

INT Seminar

10:30 AM, Rm. C-421 PAT

Heiko Hergert, Technical University-Darmstadt

“Hartree-Fock and Hartree-Fock-Bogoliubov with Modern Effective Interactions”

Thursday, October 25, 2007

INT Seminar

10:30 AM, Rm. C-421, PAT

Joseph Ginocchio, Los Alamos National Laboratory

“Relativistic Pseudospin Symmetry, Electromagnetic Transitions, and the Nucleon-Nucleon Interaction”

Particle Theory Seminar

2:30 PM, Rm. C-520, PAT

Walter Goldberger, Yale University

“Light Scalar at the LHC: Higgs or Dilaton”

Astronomy Colloquium

4:00 PM, Rm. A-102, PAA

Marta Volonteri, University of Michigan

“New views on the Lunar Late Heavy Bombardment”

Friday, October 26, 2007

INT Seminar

10:30 AM, Rm. C-421 PAT

Jason Holt, TRIUMF

“Understanding Proton/Neutron Mixed-Symmetry from Low-Momentum Nucleon-Nucleon Interactions”

Particle Astrophysics Seminar

3:30 PM, RM. A110 PAA

Kevin Connolly & Mike Dziomba, UW Physics

Connolly “The MSW Effect” Dziomba “Majorana Neutrinos”

SEMINARS



October 22-26, 2007