

PHYSICS COLLOQUIUM, partially funded by the GSFEI

Fred Reike
University of Washington

“No Flash Required: How the retina adjusts to its sensitivity when the light inputs change”

Monday, 5/21 *Last one of the academic year!*

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

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

seminars



May 21st-25th, 2007

Abstract: Perception of sights, sounds, and smells requires sensory systems to accommodate enormous changes in the input signals. For example, we can see over a range of light levels more than a billion times greater than the range of output signals visual neurons can produce. This requires that neurons in the retina adapt or adjust their gain to match the input signals. Such adaptation can occur in multiple locations, including the receptors themselves and sites within the circuitry that reads out the receptor signals. I will describe recent experimental and computational work aimed at understanding how vision accommodates daily changes in light level.

Monday, 5/21

INT Seminar

John Behr, TRIUMF

10:30 A.M., Rm. C-421, PAT “Scalar Interaction Search via the Beta-Neutrino Correlation Using Atom Traps”

Tuesday, 5/22

Physics General Exam

Charles Hagedorn, UW Physics

10:15 A.M., NPL Conference Room

INT Seminar

Ian Towner, Queens University

10:30 A.M., Rm. C-421, PAT “Theoretical Issues Extracting ν_{ud} from Nuclear Decays”

UW Seminar

Leo Kadanoff, University of Chicago

3:30 P.M., Rm. 322, Gould Hall “The Good, the Bad, and the Awful: Excellence in Computer Simulations”

Condensed Matter (CMA) Seminar Jay Sharping, UC Merced

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

“Fiber Optical Parametric Oscillators: A New Avenue into the Wavelength-tunable Ultrafast Domain”

Chalkboard Club Seminar

Andy O’Bannon, UW Physics

5:00 P.M., Rm. C-520, PAT

“Metallic AdS/CFT”

Wednesday, 5/23

INT Seminar

Steve Sharpe, UW Physics

10:30 A.M., Rm. C-421, PAT “Lattice Evaluations of CKM Matrix Elements”

UW Seminar

Leo Kadanoff, University of Chicago

7:00 P.M., Rm. A-102, PAA

“Making a Splash, Breaking a Neck: The Development of Complexity in Physical Systems”

Thursday, 5/24

INT Seminar

Shung-ichi Ando, Sungkyunkwan University

9:30 A.M., Rm. C-421, PAT “Neutron Beta Decay in Effective Field Theory”

INT Seminar

John Hardy, Texas A&M University

11:00 A.M., Rm. C-421, PAT “Superallowed Nuclear Beta Decay: Recent Results and their Impact on ν_{ud} ”

Astronomy Colloquium

Orsala De Marco, American Museum of Natural History

4:00 P.M., Rm. A-102, PAA “Are Planetary Nebulae an Exclusively Binary Phenomenon?”

Friday, 5/25

INT Seminar

Martin Savage, UW Physics

10:30 A.M., Rm. C-421, PAT “Lattice Calculations and Nuclear Physics”