

Physics Centennial Speaker Series

UC DAVIS
DEPARTMENT OF PHYSICS

NOBEL LAUREATE IN PHYSICS

Douglas Osheroff

PROFESSOR OF PHYSICS AND APPLIED PHYSICS,
STANFORD UNIVERSITY

THURSDAY, JANUARY 15, 2009, 7 PM

ALPHA GAMMA RHO HALL,
WALTER A. BUEHLER ALUMNI AND VISITORS CENTER

Refreshments to be served after the talk.

Because of Science: Advances in Life

Science has made all of our lives much easier, and has allowed us to do things that would have been impossible just a hundred years ago. Flight and medicine are perhaps two extreme examples. Not just the treatment of diseases and mending of broken bones, but probes such as CAT scans, MRI and even fMRI allow us to look inside the body and see things with remarkable clarity. In the case of fMRI, we can even see where the brain is actually processing information! Osheroff's discovery of superfluidity in liquid ^3He while still a graduate student, which won him the Nobel Prize, vastly extended our knowledge and understanding of "unconventional" BCS states, such as the high temperature superconductors, and the superfluids believed to exist in neutron stars.

In preparing for the talk, Osheroff said, "The myriad of invitations to speak to audiences all over the world, and particularly to inspire young people to think about careers in science, have allowed me to have an impact which goes well beyond the science that I do and that I have done."

SAVE THE DATE: THURSDAY, JANUARY 15, 2009



Douglas Osheroff was born and raised in Aberdeen, Washington. He did his undergraduate work at Caltech, receiving his B.S. in physics in 1967. His graduate work was done at Cornell University, where his Ph.D. thesis work resulted in the discovery of three superfluid phases of liquid ^3He . Leaving Cornell in the fall of 1972, he spent the next fifteen years in the Physical Research Division at AT&T Bell Laboratories, the last six as the head of their Low Temperature and Solid State Research Department. Here, in collaboration, he worked on the newly discovered superfluid phases of liquid ^3He , determined the nature of nuclear spin order in solid ^3He , and made the first observations of weak localization in thin disordered metallic films. In 1987 he came to Stanford University, where he is the J.G. Jackson and C.J. Wood Professor of Physics and the Gerhard Casper University Fellow for Undergraduate Education. His research still focuses on the properties of condensed matter near the absolute zero of temperature. He has also served as chair of the Physics Department at Stanford, and 2003 he served as a member of the Columbia Accident Investigation Board, which determined the causes of the accident that led to the destruction of Space Shuttle Columbia during re-entry on February 1, 2003. Osheroff has received numerous awards: Sir Francis Simon Memorial Award, the Oliver E. Buckley Condensed Matter Physics Prize, the MacArthur Prize Fellowship Award, and the 1996 Nobel Prize for Physics. In 1991 Stanford University gave him their Walter J. Gores Award for Excellence in Teaching. He is a member of the American Academy of Arts and Sciences and the National Academy of Sciences.



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