

ERIC CORNELL

Winner of the 2001 Nobel Prize in Physics



2008 Vaden W. Miles Memorial Lecturer

Thursday, April 10, 2008
Bernath Auditorium
David Adamany Undergraduate Library, WSU
5155 Gullen Mall
Detroit, Michigan

Refreshments served at 3:00 p.m. Lecture at 4:00.

For additional information call (313) 577-2411

Stone cold science: Bose-Einstein condensation and the weird world of physics a millionth of a degree above absolute zero

As atoms get colder and colder, they become more and more like waves, and less like particles. When a gas of atoms gets so cold that the "waviness" of one atom overlaps the waviness of another, the result is a sort of quantum mechanical identity crisis, a "condensation" predicted 70 years ago by Albert Einstein. Prof. Cornell will discuss how one reaches the necessary record-low temperatures, and explain why one goes to all the trouble to make this bizarre state of matter.

ERIC CORNELL received his B.S. from Stanford University in 1985 and his Ph.D. in Physics from the Massachusetts Institute of Technology 1990. He was a post-doctoral fellow at the Joint Institute for Laboratory Astrophysics in Boulder, Colorado and he is now a Senior Scientist at the National Institute of Standards and Technology in Boulder and a Professor Adjoint in the Department of Physics at the University of Colorado, Boulder.

Professor Cornell is a Fellow of the American Academy of Arts & Sciences, the American Physical Society, and the Optical Society of America. He is a member of the National Academy of Sciences. Professor Cornell has received numerous awards throughout his career, including the 2001 Nobel Prize in Physics, the Benjamin Franklin Medal in Physics, the Lorentz Medal from the Royal Netherlands Academy of Arts and Sciences, the I. I. Rabi Prize in Atomic, Molecular and Optical Physics from the APS, the R.W. Wood Prize from the OSA, the King Faisal International Prize in Science, and the Presidential Early Career Award in Science and Engineering.

The Department of Physics and Astronomy gratefully acknowledges the American Physical Society's Division of Laser Science – Distinguished Traveling Lecturer Program for assistance in bringing Prof. Cornell to Wayne State University.

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