

USF hosts physics Nobel Laureate Phillips, laser cooling and trapping expert

TAMPA, Fla. (Jan. 29, 2004) - William D. Phillips, co-recipient of the 1997 Nobel prize for physics, will present "Almost Absolute Zero: The Story of Laser Cooling and Trapping" on Thursday, February 5 at 7 p.m. in USF's [Phyllis P. Marshall Center Ballroom](#).

Phillips, a fellow at the National Institute for Standards and Technology (www.nist.gov), will demonstrate how laser cooling can cool a gas of atoms to less than a millionth of a degree above absolute zero - 459 degrees below zero Fahrenheit - the coldest temperature in the universe.

Applications for gas atoms this cold have ranged from use in atomic clocks to quantum devices such as atom lasers.

"Dr. Phillips' presentation will be intellectually and visually stimulating," promises British Mukherjee, chair of USF's Department of Physics.

NIST's laser cooling and trapped atom research program grew from Phillips' early experiments. More recent efforts by Phillips and his NIST research team have paved the way for scientists seeking to create new forms of matter in which atoms fall to their lowest energy levels and merge into a single quantum state.

Phillips will also discuss some of the newest, most exciting developments in physics.

Also, on Friday, February 6, 4:00 p.m., in the Physics Department auditorium (PHY 141), Phillips will present a physics seminar titled "de Broglie Wave Optics with Laser-Like Atoms." Both his lecture and seminar are open to the public.

Phillips visit is sponsored by USF's [College of Arts and Sciences](#) and the USF [Department of Physics](#) with corporate support from TIAA-CREF.

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