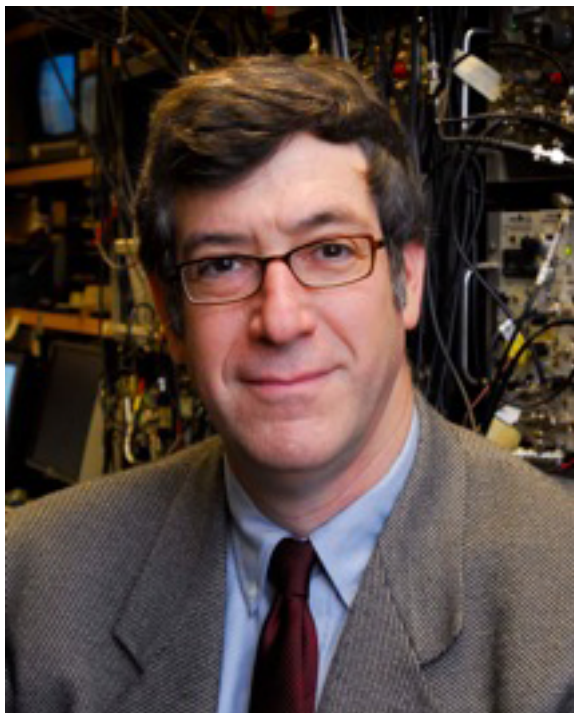


Controlling Matter with Light



Prof. Mark G. Raizen

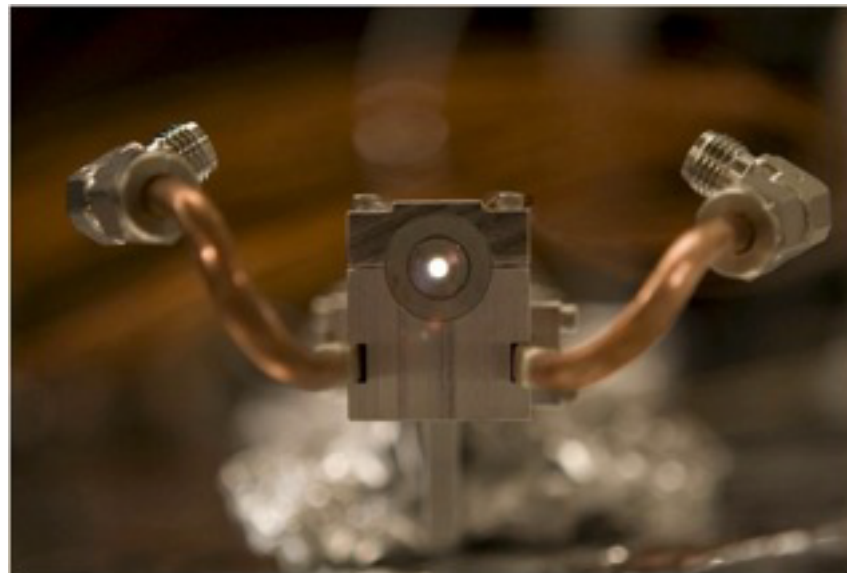
Center for Nonlinear Dynamics and Dept of Physics
U Texas at Austin

PhD Texas 1989

Postdoc JILA 1989-1991

Texas faculty 1991-

This talk will describe laboratory realization of an experiment originally proposed by Maxwell and Einstein, demonstrating new ways to control matter by light.



3:00 pm, Monday, Apr 25, 2011

Sloan Auditorium, Goergen 101

Refreshments provided.

Controlling Matter with Light

Mark G. Raizen

Center for Nonlinear Dynamics and Department of Physics

The University of Texas at Austin

Abstract

In 1871, James Clerk Maxwell proposed a thought experiment, and in 1907, Albert Einstein made a prediction. Both men concluded that the experimental realizations would be impossible. In this talk I will describe our recent work that relates to this history, and show how it has enabled new methods for controlling matter with light.

Biography

Mark Raizen started his scientific career in theoretical particle physics in 1984 under the supervision of Steven Weinberg at the Univ. of Texas at Austin. In 1985 he decided to move into experimental physics in the group of Jeff Kimble (now at Caltech), and completed his Ph.D. in 1989 under the joint supervision of Kimble and Weinberg. After graduation, Mark took a postdoctoral position in the group of David Wineland at NIST, Boulder. Mark was hired in 1991 as an Assistant Professor at The University of Texas at Austin, was promoted to tenure in 1996 and to full professor in 2000. He has held the Sid W. Richardson Chair in Physics for the past ten years, one of only four such chairs in the physics department. In recent years Mark was recognized by The I. I. Rabi Prize of the APS, the Max Planck Award, and the Willis Lamb Medal in Laser Science. He is a Fellow of the APS and OSA.