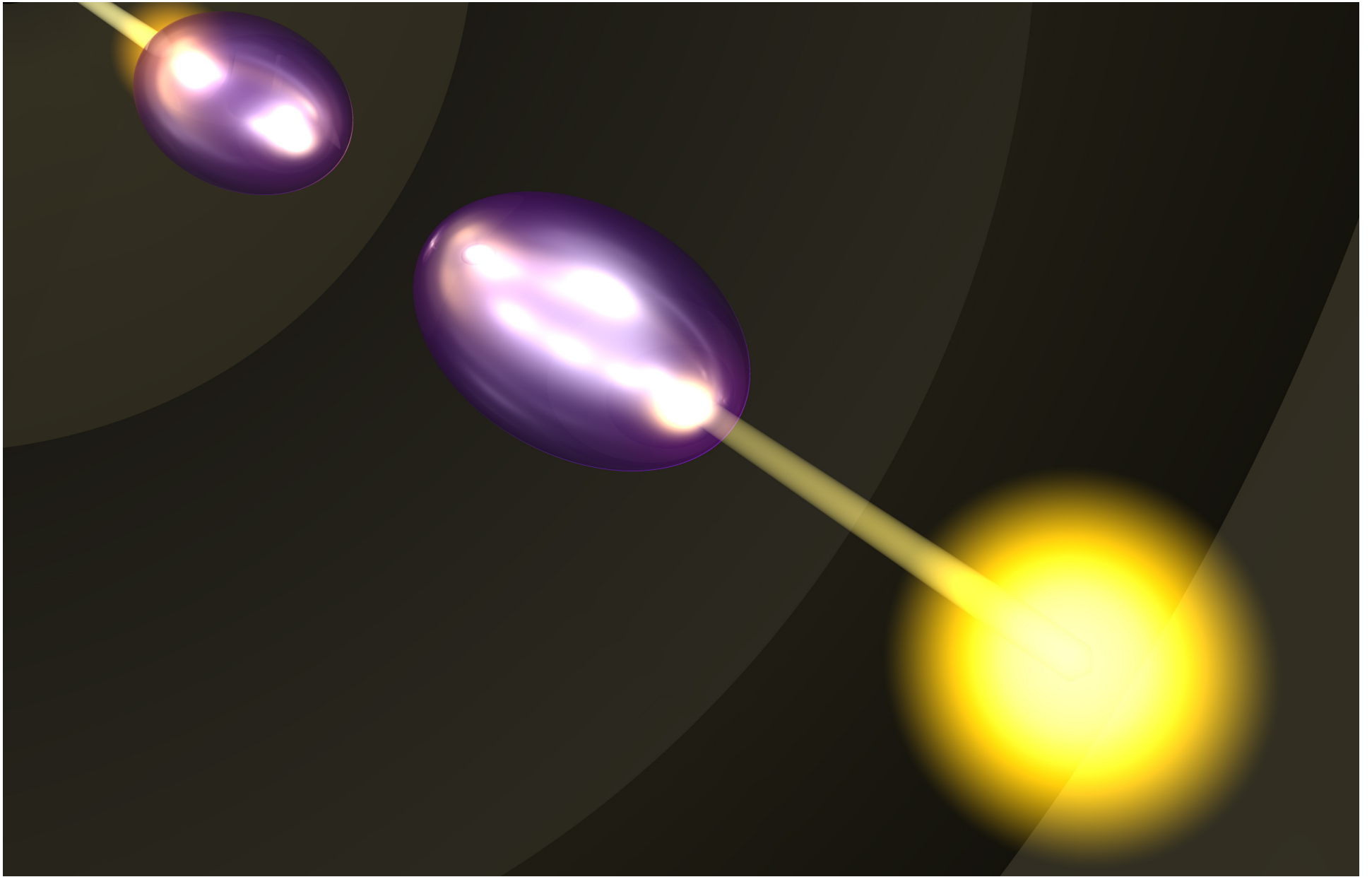


Boston University Physics Colloquium

The Benson T. Chertok Lecture



Wizardry with light: freeze, teleport, and go!

In our laboratory, we routinely slow light to bicycle speed in ultra cold atom clouds. This is a 100 million fold slow down compared to the light speed in vacuum. In the process, light pulses spatially compress by the same large factor, from 1 mile to only 0.001", at which point they fit entirely within an atom cloud and can be stopped completely for more than a second. In some of our latest experiments, we take matters further: We stop and extinguish a light pulse in one part of space and revive it in a completely different location. The experiments create a new paradigm for control and inter-conversion of light and matter.... and the secret behind the tricks will be revealed in the talk.

Lene Vestergaard-Hau
Harvard University

November 17, 2009 (Tuesday) at 3:30pm (Refreshments at 3:15pm)
SCI 107, Metcalf Science Center, Boston University
Call: Winna Somers (wsomers@bu.edu) (617) 353-9320
Host: William Klein