



U N I V E R S I T Y O F
SOUTH CAROLINA

DEPARTMENT OF
PHYSICS AND ASTRONOMY
COLLOQUIUM

Speaker:

Dr. Brett Altschul

**Assistant Professor in Department of Physics and Astronomy
University of South Carolina**

Title:

“Can the Photon Have Mass or Charge?”

Abstract:

So far as we understand, photons have zero mass and zero charge. Yet it is interesting to ask how well we actually know this. There are a number of different ways to constrain the photon mass and charge, and I will review the available experimental evidence--which tells us that both parameters must be very small. Interestingly, most of the best bounds involve astrophysical effects, including the most recent bounds on the photon charge, which are based on the coherence of radio waves arriving from distant galaxies.

**Jones Physical Science Center
Rogers Room
PSC 409**

**Thursday, November 1, 2007
3:30 pm**

Refreshments at 3:15 pm

Everyone invited

**Hosted by:
Sanjib R. Mishra**