



Presents Research Seminar Speaker:

**Dr. Marlan O. Scully**

**Distinguished Professor**

**Department of Physics—Texas A & M University**

Friday October 16, 2009

Time: 3:00-4:00 p.m.

Loefler Room

BSB 3.03.02



## **Highly Efficient Quantum Dot Solar Energy Conversion via a Band Gap Tuned Array**

The energy efficiency of solar cells has increased from 5% half a century ago to 40+% in the three cell stacks used to power the space station. We propose and analyze a tailored array of cells each of which is based on quantum nanocrystals which are band gap engineered to a portion of the solar spectrum. Efficiencies in excess of 70% are shown to be attainable.

