

# Particle Physics/High Energy Seminar

**Professor Jack Gunion**  
**UC Davis**

**Title:** Theoretical Ideas About and Experimental Probes of Light Higgs Bosons

**Abstract:** I will repeat the talk I gave recently at the BaBar Meeting at SLAC in which I outline reasons why, and models in which, we might expect to have light Higgs bosons that have so far escaped detection. In particular, I will review the Next-to-Minimal Supersymmetric Model in which there is a 100 GeV Higgs boson that decays primarily via  $h \rightarrow aa$  where  $m_a < 2m_b$ . The importance of running BaBar on the  $\Upsilon(3S)$  resonance to probe this scenario is stressed at the end. Experimental issues at the LHC will also be discussed.

**Tuesday November 6, 2007**  
**4:10-6PM - Room 416 PHY/GEO**