

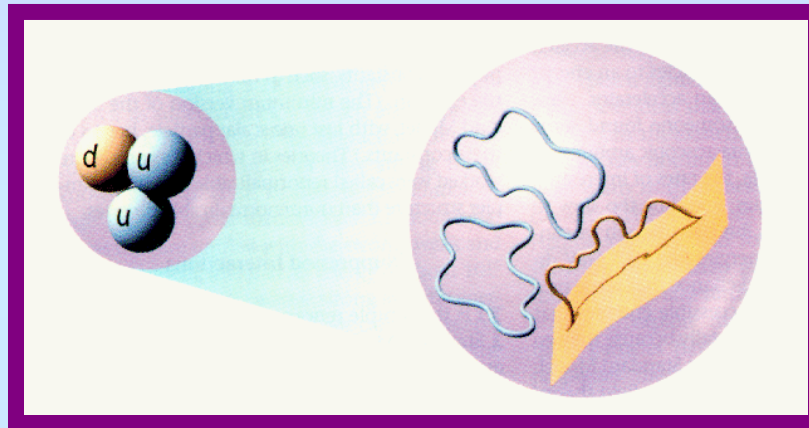
# CU Physics Department Colloquium

Monday, February 9, 2009 4:10 PM 428 Pupin Hall

**Cumrun Vafa, Harvard University**



## *“Stringy Predictions for Particle Physics”*



Recent progress in string theory has led to a vast landscape of consistent vacua for the theory. In this talk I will discuss how the principle of decoupling of quantum gravity from particle physics leads to a very narrow set of possibilities in this landscape. This rigid framework leads to specific predictions for particle physics, including a quantitative explanation of mass hierarchies for quarks and leptons. Moreover this approach to particle phenomenology leads to specific predictions for new physics at the LHC.

Hosted by Brian Greene - Meet the Speaker at 3:30 pm in 705 Pupin