

Physics Colloquium
Monday March 27th , 2006
4:15 PM 428 Pupin Hall
Professor Hal Evans, Indiana University

“Latest News on Bs Mixing from D0”

Signals of physics beyond the Standard Model are keenly anticipated in upcoming collider experiments. However, seeing a bump in a mass spectrum is only the first step on the path to a better model of particle interactions. Determining the nature of the new physics will require input from a wide variety of sources ranging from the structure of the universe to the properties of its tiniest components. One of the most promising avenues of study though, leads through the realm of quark flavor to the province of the b-quark. I will discuss why the study of b-quarks is such a fertile field for our understanding of physics beyond the Standard Model. Past successes as well as the current status of research will be outlined. I will then move on to describe the latest results from D0 in the area of Bs - anti-Bs meson oscillations. We have observed a tantalizing hint of a signal - a first for a single experiment. I will discuss this result, its interpretation and some of its consequences.



Host: Professor Parsons