

Beauty in the Mirror: Looking for New Physics in CP Violation



When CP violation was first discovered in 1964, it came completely unexpected, and its theoretical interpretation was unclear. Could this phenomenon be explained by the Standard Model of Particle Physics, or was it the first sign of New Physics?

The experimental investigation of CP violation has taken a major turn since the B factories started taking data in 1999. The abundant dataset accumulated at these machines allowed the first quantitative test of CP violation in the Standard Model. Recently, the B factories entered a new phase of precision CP measurements, in which they have the potential to uncover effects of New Physics beyond the Standard Model.

After an introduction to the CP symmetry and its amazing consequences, I will discuss how measurements of CP violation in B decays are sensitive to New Physics, review the latest results, and discuss their implications.

CU Physics Department Colloquium

Monday, February 12, 2007 4:10 PM 428 Pupin Hall



Colloquium Presenter: Professor Gabriella Sciolla, MIT