

Physics Colloquium
Monday May 1st, 2006
4:15 PM 428 Pupin Hall
Professor Paul Steinhardt, Princeton
“The Endless Universe”

Abstract: Cosmologists have converged on a highly successful theory of the evolution of the Universe based on the big bang picture and inflationary cosmology. However, a radical alternative has emerged which challenges nearly every aspect of the standard picture. In this “cyclic model,” the universe can be described in terms of two (mem)branes that undergo intervals of stretching followed by a collision that infuses space with new matter and radiation. Space and time exist before the big bang, cosmic evolution is periodic, inflation is avoided, and the temperature of the universe never exceeds a trillion trillion degrees. This talk will introduce the Cyclic Universe picture, showing how it may be possible for it to re-obtain all of the successful predictions of the standard model and, at the same time, to have distinctive predictions.



Host: Professor Greene