

Colloquium Notice

Warner Miller

Florida Atlantic University

General Relativity - One Block at a Time

There has been considerable interest in curvature, diffusive curvature flows and general relativity on discrete geometries. This has been applied to broad problems from complex networks to solve the greedy routing problem to Regge calculus to solve Einstein's field equations. Hamilton's Ricci Flow has garnered considerable interest in its application to help prove the Poincare conjecture by Perelman. We describe here our progress in formulating discrete Ricci flow (DRF) on a simplicial geometry of arbitrary dimension, D . In so doing we provide an explicit and geometric construction of the Riemann tensor, Ricci tensor and the scalar curvature. We will then discuss the discrete formulation of Einstein's geometric theory of gravitation known as Regge calculus.

Monday

March 14, 2011

Starts at 12:15 PM

Coffee at 12:00 PM

Physics Conference Room, SB B326