UNIVERSITY OF CALIFORNIA RIVERSIDE

DEPARTMENT OF MATHEMATICS

Colloquium

Dr. Jun Kigami

(University of Kyoto, Japan)

"Analysis on Metric-Measure spaces -- Cheeger energy and measurable Riemannian structure"

Abstract:

Under certain conditions, Cheeger has constructed "measurable differentiable structures" on measure-metric spaces, based on Lipschitz functions. On the other hand, there is a notion of "measurable Riemannian structure" induced by Brownian motion or a Dirichlet form on fractals like the Sierpinski gasket. In general, very little is known about the relation between those two structures, i.e., measurable differentiable structure and measurable Riemannian structure. In this talk, I am going to review those two structures and discuss unsolved problems about them.

Thursday, March 14th, 2013

Surge 284

Tea Time 3:40 p.m. – Talk Begins 4:10 p.m.