RUTGERS

UNIVERSITY | NEWARK

Department of Mathematics and Computer Science

Colloquium

Conformal geometry and the Ricci flow

Ayush Khaitan
Rutgers - NB

Abstract:

We establish a duality between conformal geometry and the Ricci flow, by proving that the Fefferman-Graham ambient metric is dual to the Kleiner-Lott Ricci flow spacetime in a suitable sense. Using tools from conformal geometry, we also construct infinite families of fully non-linear analogues of Perelman's $\mathcal{F}$ and $\mathcal{W}$-functionals, and study their monotonicity. We prove this monotonicity in several cases, and discuss some interesting patterns.

$4 - 5$pm
Wednesday, March 6, 2024
Room 204, Smith Hall