

Seminário de sistemas dinâmicos e estocásticos

IMECC - UNICAMP

Título: Introduction to Discrete Ricci curvature.

Florentin Munch

Max Planck Institute for Mathematics in the Sciences

Resumo:

We start giving a historical overview of Ricci curvature notions on Markov chains, graphs and cell complexes. We then discuss important consequences of positive curvature, such as gradient estimates, eigenvalue estimates, diameter bounds and concentration of measure. We then dig a bit deeper and investigate the graphs for which the diameter bounds hold with equality. We will classify these graphs and demonstrate how they can be characterized via certain graph automorphisms