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**Fakultät für
Mathematik, Informatik
und Naturwissenschaften**

Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 9. Mai 2017

17 Uhr s.t., Geom H4

Prof. Dr. Karl-Theodor Sturm
(Universität Bonn)

Metric measure spaces and synthetic Ricci bounds – from optimal transport to Ricci flow

Abstract:

We give a brief introduction to the theory of metric measure spaces with synthetic Ricci bounds in the sense of Lott-Sturm-Villani and present the analysis on these spaces as developed by Ambrosio-Gigli-Savare.

Of particular interest will be the heat equation on time-dependent metric measure spaces (being a dynamic forward gradient flow for the energy) and its dual (being a dynamic backward gradient flow for the Boltzmann entropy). Super-Ricci flows of metric measure spaces will be characterized by monotonicity estimates for transportation distances and for squared gradients.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.