



Oberseminar Geometrische Analysis und Mathematische Relativitätstheorie

Am Donnerstag, den 17.07.2014 spricht um **14 Uhr c. t.** im Hörsaal **M1** (N14)

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(Pacific University)

über das Thema

The Second Order Renormalization Group Flow

The Ricci flow has been of fundamental interest in geometry, most famously due to its central role in the proof of the Poincaré conjecture. It also arises naturally in physics as the first order approximation of a renormalization group flow from quantum field theory. The *second* order approximation, called the RG-2 flow, is the geometric evolution equation

$$g' = -2Rc - \frac{\alpha}{2}Rm^2,$$

where g is a Riemannian metric, Rc is its Ricci curvature, Rm^2 is a square of the full curvature tensor, and α is a small positive parameter. We will introduce and motivate the study of this flow, and discuss recent results and open problems.

Hierzu wird herzlich eingeladen.