For Favour of Posting

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Joint Geometric Analysis Seminar

(Part of MIST program)

The Yamabe flow on asymptotically Euclidean manifolds

Dr. Eric Chen
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Abstract

While on compact manifolds, the Yamabe flow generally converges to a metric of constant scalar curvature, long-time existence or convergence of the flow does not always hold on noncompact manifolds. I will discuss the behavior of the Yamabe flow on asymptotically Euclidean manifolds. In this case, long-time existence of the Yamabe flow always holds, and the flow converges if and only if the Yamabe constant of the initial metric's conformal class is positive. When convergence fails in the case of a nonpositive Yamabe constant, the blowup profile at time infinity can be described using the solution of the Yamabe problem on a singular compactification of the original manifold. This is joint work with Gilles Carron and Yi Wang.

Date: November 4, 2022 (Friday)
Time: 11:00am – noon (Hong Kong time)
ZOOM link: https://cuhk.zoom.us/j/91805734715

All are Welcome