

GRADUATE STUDENT GEOMETRY SEMINAR

Guest Speaker: Xiaoxiao Li

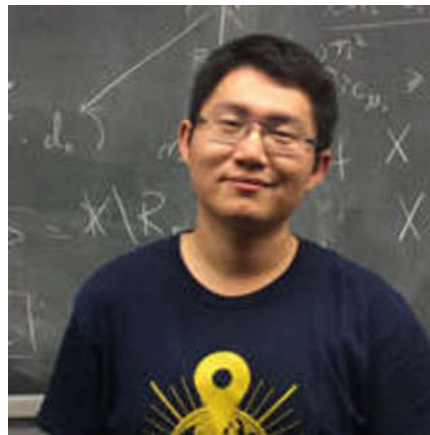
University of Notre Dame

Date: Friday, October 9, 2020

Time: 3:00 PM

Location: Zoom

Zoom URL: [notredame.zoom.us/j/96302373523?
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Lecture Title:

Slowly Converging Yamabe Flows II

Abstract

I'm going to talk about a result by Carlotto, Chodosh and Rubinstein. They characterize the rate of convergence of a converging volume-normalized Yamabe flow in terms of Morse theoretic properties of the limiting metric. If the limiting metric is an integrable critical point for the Yamabe functional (for example, this holds when the critical point is non-degenerate), then the flow converges exponentially fast. In general, they use a suitable Lojasiewicz-Simon inequality to prove that the slowest the flow will converge is polynomially. When the limit metric satisfies an Adams-Simon type condition there exist flows converging to it exactly at a polynomial rate.