Department of Mathematics

The Institute of Mathematical Sciences

The Chinese University of Hong Kong

數學系

數學科學研究所

香港中文大學

Phone: (852) 3943 7988 ● Fax: (852) 2603 5154 ● Email: dept@math.cuhk.edu.hk (Math. Dept.)
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Joint Geometric Analysis Seminar

(Part of MIST program)

On manifolds with controlled mass-to-capacity ratio

Prof. Pengzi Miao
University of Miami

Abstract

On an asymptotically flat 3-manifold with boundary, it has been shown recently that the mass-to-capacity ratio is bounded below by one minus the square root of the normalized Willmore functional of the boundary, provided the manifold has nonnegative scalar curvature and simple topology. This inequality indicates manifolds with the mass-to-capacity ratio bounded above by one is worthy of study. In this talk, we discuss properties of such manifolds.

Date: January 26, 2024 (Friday)
Time: 11:00am-noon
Venue: AB1 502a

All are Welcome