FOLIATION OF AREA-MINIMIZING HYPERSURFACES IN ASYMPTOTICALLY FLAT MANIFOLDS

Speaker: Haobin Yu
Hangzhou Normal University

Time: Tue, May 13, 14:00-15:00pm
Venue: Room 106, SCMS

Abstract:

In this talk, we demonstrate that any asymptotically flat(AF) manifold $M^n(n \geq 4)$ can be foliated by a family of smooth area-minimizing hypersurfaces. As an application, we prove a drift-to-infinity property of free boundary minimal hypersurfaces in large cylinders lying in AF manifolds with nonnegative scalar curvature and positive mass. This property can be regarded as the global effect of positive mass theorem. This is joint work with Shihang He and Prof.Yuguang Shi.