

*Department of Mathematics,
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Math 258 - Differential Geometry

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Notre Dame

Uniqueness of certain cylindrical tangent cones

Abstract:

Leon Simon showed that if an area minimizing hypersurface admits a cylindrical tangent cone of the form $C \times \mathbb{R}$, then this tangent cone is unique for a large class of minimal cones C . One of the hypotheses in this result is that $C \times \mathbb{R}$ is integrable and this excludes the case when C is the Simons cone over $S^3 \times S^3$. The main result in this talk is that the uniqueness of the tangent cone holds in this case too. The new difficulty in this non-integrable situation is to develop a version of the Lojasiewicz-Simon inequality that can be used in the setting of tangent cones with non-isolated singularities.

Special Note:

Additional talk at 3:00pm

Host: Lei Ni

Wednesday, December 2, 2020

11:00 AM

Zoom ID: 960 7952 5041
