



## 复旦大学数学科学学院 数学综合报告会

报告题目: From Fluid Dynamics to Differential Geometry: Do We Have Wild Oscillations or Spirals?

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报告时间: 2020-10-23 星期五 13:30-14:30

报告地点: 腾讯会议 (会议号) 832 963 224

摘要: We report our recent work on several questions in geometric and global analysis, with emphasis on the existence and weak stability of isometric immersions and Gauss--Codazzi equations. By exploring linkages and analogies between fluid dynamics and differential geometry, we obtain new results and/or counterexamples to these problems. Throughout, the presence or preclusion of "wild" spirals and oscillations, reminiscent of the celebrated "Nash wrinkles" for  $S^1$ -isometric immersions, play a central role in our arguments.

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