

非线性椭圆方程线上研讨会 B

时间: 2020 年 12 月 16 日 (星期三)

上午 9:00-11:20, 下午 2:00-3:30

腾讯会议 ID: 695 999 728

主办单位: 复旦大学

会议组织者: 华波波, 黄耿耿, 王志张

报告人:

唐 岚 华中师范大学

罗 勇 重庆理工大学

鲁 建 华南师范大学

朱晓宝 中国人民大学

陈 立 湖北大学

	12 月 16 日(周三)
上午 9:00-9:40	唐岚
9:50-10:30	罗勇
10:40-11:20	鲁建
下午 2:00-2:40	朱晓宝
2:50-3:30	陈立

报告题目: Boundary Regularity Theory for the Dirichlet Problem of Degenerate Monge-Ampere Equations

报告人: 唐岚

报告摘要:

For the Dirichlet Problem of Degenerate Monge-Ampere Equations, we establish boundary $C^{1, \alpha}$ regularity for convex solutions with optimal conditions. This work is joint with Luis Caffarelli and Xu-Jia Wang.

报告题目: Rigidity of CSL submanifolds in the unit sphere

报告人: 罗勇

报告摘要:

A contact stationary Legendrian submanifold (briefly, CSL submanifold) is a stationary point of the volume functional of Legendrian submanifolds in a Sasakian manifold. In this talk we will discuss pinching phenomena of CSL submanifolds in the unit sphere. Actually, we will show that if the square length of the second fundamental form of a CSL submanifold M^n in the unit sphere S^{2n+1} belongs to $[0, a(n, H)]$, where $a(n, H)$ is a positive number depending on the n and the mean curvature vector field

H , then it must be totally geodesic, minimal or a Calabi product.

This is a recent joint work with Linlin Sun.

报告题目： Non-uniqueness of solutions to a class of Monge-Ampere type equations

报告人： 鲁建

报告摘要：

We consider a class of Monge-Ampere type equations defined on the unit sphere in the Euclidean space. These equations arise from the modern Brunn-Minkowski theory about convex geometry, and they may be degenerate or singular in different situations. We will mainly talk about some recent progress about the non-uniqueness of solutions to these equations. This is based on a joint work with Qi-Rui Li and Jiakun Liu.

报告题目： Kazdan-Warner equations on compact Riemann surfaces

报告人： 朱晓宝

报告摘要:

In this talk, we shall present some existence results of Kazdan-Warner equations on compact Riemann surfaces. Firstly, we want to talk about some known existence results; Secondly, we shall introduce the method developed by Ding-Jost-Li-Wang-1997, which is based on the variational method and blowup analysis. Finally, we shall give some new existence results.

报告题目: Uniqueness of self-similar solutions to curvature flows

报告人: 陈立

报告摘要:

We will show uniqueness of self-similar solutions to a class of curvature flows. As a corollary, we obtain uniqueness of solutions to L_p Christoffel-Minkowski problem for $p < 1$.