天元數學國際交流中心
Tianyuan Mathematics Research Center

泛函不等式的稳定性及其相关偏微分方程会议研讨会

Workshop on Functional Inequalities, Their Stability and Related PDEs

TY-2026-C-048

会议手册

Conference Program

召集人： **Organizers：**

刘祥清 云南师范大学
Xiangqing Liu Yunnan Normal University

Tobias König 德国法兰克福大学
Goethe-Universität Frankfurt

2026 年 10 月 25 日—31 日

October 25 - 31, 2026

中国 • 昆明

Kunming, China

天元数学国际交流中心简介

天元数学国际交流中心（以下简称“中心”）成立于2023年7月，由中国科学院、国家自然科学基金委员会、中国数学会、中国科学院数学与系统科学研究院，以及昆明市有关部门共同支持建设的数学与交叉科学交流机构。旨在搭建数学及其跨学科应用领域的学术交流平台，提升我国数学整体研究水平，成为国际一流的数学交流与合作研究中心。

中心位于昆明市宜良县柴石滩水库库区，三面环山、一面临水，环境优美，海拔约1700米。距长水国际机场约90公里（车程约1.5小时），距石林风景区约30公里，距九乡风景区约20公里。

中心总建筑面积约6000平方米，设有大报告厅（可容纳100人，配备高清LED屏）、中型会议室1间、小型会议室4间、研讨/工作室21间、图书阅览室1间、咖啡厅1间。专家楼配有56间宿舍及自助洗衣房、公共休息区等配套设施。

中心官方网站：http://tianyuan.amss.ac.cn/





Introduction to Tianyuan Mathematics Research Center （TYMRC）

The Tianyuan Mathematics Research Center (established in July 2023) is jointly supported by the Chinese Academy of Sciences, the National Natural Science Foundation of China, the Chinese Mathematical Society, the Academy of Mathematics and Systems Science of the Chinese Academy of Sciences, and relevant departments of Kunming City. It aims to build a platform for academic exchange in mathematics and interdisciplinary applications, enhance China's overall mathematical research level, and become a world-class center for mathematical exchange and collaborative research.

It is located in the national-level public welfare forest in the Chaishitan Reservoir area of Yiliang, Kunming, Yunnan Province, surrounded by mountains on three sides and facing water on one side. The center has a total land area of about 27,000 square meters, with three two-story main buildings, namely the Research Building, the Expert Building and the Logistics Building, which can accommodate nearly 200 people for academic activities, and are equipped with a library and reading room, a restaurant and a certain number of offices and guest rooms.

The center has a total construction area of approximately 6,000 square meters. It features a main lecture hall (capacity: 100 people, equipped with an HD LED screen), one medium-sized seminar room, four small meeting rooms, 21 seminar/workshop rooms, one library and reading room, and one café. The Expert Building is equipped with 56 guest rooms, as well as supporting facilities such as a self-service laundry room and a public lounge.

Official website: http://tianyuan.amss.ac.cn/

会议信息

一、研讨主题、内容及意义：

本次研讨会将围绕“泛函不等式的稳定性及其相关的偏微分方程”这一主题，邀请相关领域的专家学者汇聚一堂，通过主题报告和集中研讨的形式，共同探讨泛函不等式的稳定性及其相关偏微分方程领域的最新进展、尚未解决的核心科学问题、当前面临的主要困难以及可能的突破方向。

二、活动日程：

报到：2026 年 10 月 25 日

报告：2026 年 10 月 26 日至 10 月 30 日

离会：2026 年 10 月 31 日

地点：天元数学国际交流中心（云南省昆明市宜良县柴石滩水库）

三、相关事项：

1. 本次研讨会得到天元数学国际交流中心资助，参会人员的住宿及餐饮由中心承担，其余费用（含往返交通费）由参会人员自理。
2. 中心统一安排往返昆明高铁站/长水机场及昆明市区的接送服务。请及时登录项目管理系统（http://tianyuanpm.amss.ac.cn/）登记行程信息。
3. 中心距离医院较远，建议访客适当随时携带一些必备药品。
4. **会议联系人：**

   吴元泽（云南师范大学）：+86-15852481084

Conference Information

I. Seminar Theme, Content, and Significance：

This workshop will focus on the theme of "Functional Inequalities, Their Stability and Related PDEs", bringing together experts and scholars in these fields. Through thematic presentations and focused discussions, participants will explore the latest advances, key open problems, major challenges currently facing the field, and potential avenues for breakthroughs.

II、Program Schedule：

Check-in: October 25, 2026

Talks: October 26 – October 30, 2026

Departure: October 31, 2026

Venue: Tianyuan Mathematics Research Center (Chishitan Reservoir, Yiliang County, Kunming, Yunnan Province)

III、Practical Information：

1. This workshop is financially supported by the TYMRC. Accommodation and meals for participants will be covered by the Center. All other expenses (including round-trip transportation) shall be borne by the participants themselves.
2. The Center will arrange shuttle services to/from the following locations: Kunming High-Speed Railway Station, Kunming Changshui International Airport, and downtown Kunming. Participants are kindly requested to log in to the project management system (http://tianyuanpm.amss.ac.cn/) in a timely manner to register their travel information.
3. As the Center is located at a considerable distance from the nearest hospital, participants are advised to bring an adequate supply of essential personal medications.
4. Conference Contact:
   Yuanze Wu (Yunnan Normal University): +86-15852481084

会议日程一（Schedule I）

10 月 25 日	
周日 Sunday	报到（**Registration**）
10 月 31 日	
周六 Saturday	离会（**Departure**）

10 月 26 日（周一 Monday）			
8:45-9:00	开幕式及合影 Opening Ceremony & Group Photo		
时间 Time	报告人 Speaker	题目 Title of talk	主持人 Chair
9:00-9:45	魏军城 Juncheng Wei	On generalized Chang–Yang conjecture and Dolbeault Conjecture	Nicola Fusco
9:45-10:15	讨论（Discussion over coffee）		
10:15-10:45	Jonas Peteranderl	The sharp σ_k -curvature inequality on locally conformally flat manifolds in quantitative form	Nicola Fusco
10:45-11:30	李沁峰 Qinfeng Li	A Quantitative Pólya–Szegő Theorem for Tangential Polygons	Nicola Fusco
11:30-12:00	自由讨论 Open Discussion		
12:00-14:00	午餐（Lunch Break）		
14:30-15:15	吴元泽 Yuanze Wu	A refined blow-up analysis of the Brezis–Nirenberg equation and its application: The one-bubble case for $N \geq 4$	刘祥清 Xiangqing Liu
15:15-15:45	讨论（Discussion over coffee）		
15:45-16:30	吴 轲 Ke Wu	Half-space theorem for the Allen–Cahn equation	吴科 Ke Wu
16:30-18:00	自由讨论 Open Discussion		
18:00-20:00	晚餐（Dinner Break）		

会议日程二（Schedule II）

10 月 27 日（周二 Tuesday）			
时间 Time	报告人 Speaker	题目 Title of talk	主持人 Chair
8:30-9:15	Giulio Ciraolo	Classification results for the Liouville equation	Robin Neumayer
9:15-9:45	讨论（Discussion over coffee）		
9:45-10:30	郭玉劲 Yujin Guo	On the Finite-Rank Hardy–Lieb–Thirring Inequality for the Hardy–Schrödinger Operator	Robin Neumayer
10:30-11:15	Francesco Nobili	Stability of Sobolev inequalities on manifolds with Ricci curvature lower bounds	Robin Neumayer
11:15-12:00	自由讨论 Open Discussion		
12:00-14:00	午餐（Lunch Break）		
14:30-15:15	邓圣兵 Shengbing Deng	Stability for the weighted biharmonic Caffarelli–Kohn–Nirenberg inequalities	郭玉劲 Yujin Guo
15:15-15:45	讨论（Discussion over coffee）		
15:45-16:30	田兴亮 Xingliang Tian	Existence of minimizers for the stability constant of a fractional nonlocal Sobolev-type inequality	郭玉劲 Yujin Guo
16:30-18:00	自由讨论 Open Discussion		
18:00-20:00	晚餐（Dinner Break）		

会议日程三（Schedule III）

10 月 28 日（周三 Wednesday）			
时间 Time	报告人 Speaker	题目 Title of talk	主持人 Chair
8:30-9:15	Nicola Fusco	Consistency for the surface diffusion flat flow in three dimensions	Giulio Ciraolo
9:15-9:45	讨论（Discussion over coffee）		
9:45-10:30	李圆 Yuan Li	Non-radial solutions for critical elliptic equations with the Hénon potential	Giulio Ciraolo
10:30-11:15	陈 露 Lu Chen	Stability of the Gross Log-Sobolev inequality	Giulio Ciraolo
11:15-12:00	自由讨论 Open Discussion		
12:00-14:00	午餐（Lunch Break）		
14:30-15:15	自由讨论 Open Discussion		
15:15-15:45			
15:45-16:30			
16:30-18:00			
18:00-20:00	晚餐（Dinner Break）		

会议日程四（Schedule IV）

10 月 29 日（周四 Wednesday）			
时间 Time	报告人 Speaker	题目 Title of talk	主持人 Chair
8:30-9:15	Robin Neumayer	Singular set estimates in quasilinear Alt–Caffarelli problems	魏军城 Juncheng Wei
9:15-9:45	讨论（Discussion over coffee）		
9:45-10:30	Seunghyeok Kim	Quantitative Stability for Critical Elliptic Equations Beyond Euclidean Space	魏军城 Juncheng Wei
10:30-11:15	孙黎明 Liming Sun	Conformal Metrics on the Unit Ball with Constant Q-Curvature, Constant T-Curvature, and Minimal Boundary	魏军城 Juncheng Wei
11:15-12:00	自由讨论 Open Discussion		
12:00-14:00	午餐（Lunch Break）		
14:30-15:15	自由讨论 Open Discussion		
15:15-15:45			
15:45-16:30			
16:30-18:00			
18:00-20:00	晚餐（Dinner Break）		

会议日程五（Schedule V）

10 月 30 日（周五 Friday）			
时间 Time	报告人 Speaker	题目 Title of talk	主持人 Chair
8:30-9:15	Tobias König	Existence of stability optimizers for Yamabe-type inequalities	Seunghyeok Kim
9:15-9:45	讨论（Discussion over coffee）		
9:45-10:30	张 翼 Yi Zhang	Stability of Alexandrov's theorem and its applications	Seunghyeok Kim
10:30-11:15	Debabrata Karmakar	Quantitative Stability and Geometric Rigidity: Onofri and Heisenberg–Pauli–Weyl	Seunghyeok Kim
11:15-12:00	自由讨论 Open Discussion		
12:00-14:00	午餐（Lunch Break）		
14:30-15:15	自由讨论 Open Discussion		
15:15-15:45			
15:45-16:30			
16:30-18:00			
18:00-20:00	晚餐（Dinner Break）		

报告摘要（Report Abstracts）

1. 报告题目 **Title：Stability of the Gross Log-Sobolev inequality**

   报告人 **Speaker：**Lu Chen (Beijing Institute of Technology)

   报告摘要 **Abstract：**In this talk, I will provide a new proof of the stability of the Gross Log-Sobolev inequality and identify the explicit lower bound for the stability constant. Finally, I will also give its application in the logarithmic reaction-diffusion equation.

2. 报告题目 **Title：Classification results for the Liouville equation**

   报告人 **Speaker：**Giulio Ciraolo (Università degli Studi di Milano)

   报告摘要 **Abstract：**We review some recent classification results for the classical Liouville equation in the plane, as well as its generalizations to higher dimensions, Riemannian manifolds and anisotropic settings.

3. 报告题目 **Title：Stability for the weighted biharmonic Caffarelli–Kohn–Nirenberg inequalities**

   报告人 **Speaker：**Shengbing Deng (Southwest University)

   报告摘要 **Abstract：**In this talk, we introduce some results on the quantitative stability and symmetry for the weighted biharmonic Caffarelli–Kohn–Nirenberg inequalities. On the positive matched

Hardy–Hénon line, we classify all extremals and establish a global Bianchi–Egnell stability estimate. We further prove that extremal rigidity and quantitative stability persist in an open two-parameter neighborhood.

4. 报告题目 **Title：Consistency for the surface diffusion flat flow in three dimensions**

   报告人 **Speaker：** Nicola Fusco (Università degli Studi di Napoli Federico II)

   报告摘要 **Abstract：** We will discuss the existence of a flat flow solution for the surface diffusion equation via a discrete approximation scheme proposed by J. W. Cahn and J. E. Taylor in 1994. Precisely, we will show that in three dimensions, if the initial set is sufficiently regular, the scheme converges to the unique smooth solution of the equation, as long as the latter exists. The talk is based on a joint paper with M. Cicalese, V. Julin and A. Kubin, to appear in JEMS.

5. 报告题目 **Title：On the Finite-Rank Hardy–Lieb–Thirring Inequality for the Hardy–Schrödinger Operator**

   报告人 **Speaker：** Yujin Guo (Central China Normal University)

   报告摘要 **Abstract：** This talk is concerned with the finite-rank Hardy–Lieb–Thirring inequality for the Hardy–Schrödinger operator

in R^d, where $d \geq 1$ is arbitrary. By employing the density functional theory and PDE analysis, we mainly discuss the existence and analytical properties of the optimizers for the inequality.

6. 报告题目 **Title：Quantitative Stability and Geometric Rigidity: Onofri and Heisenberg–Pauli–Weyl**

报告人 **Speaker：** Debabrata Karmakar (Centre for Applicable Mathematics, TIFR)

报告摘要 **Abstract：** Stability questions ask whether a small deficit in a functional inequality implies that a function is close to an optimizer. This perspective also leads naturally to geometric stability: when an inequality characterizes a model space through the existence of extremizers, does a nearly vanishing deficit force the underlying manifold to be close to that model space? In the first half of the talk, we discuss the quantitative stability of the Trudinger–Moser–Onofri inequality and some of its variants on the two-sphere. In the second half, we turn to a geometric stability problem arising from the Heisenberg–Pauli–Weyl uncertainty principle. We show that a sequence of manifolds with vanishing deficits converges, in the Gromov–Hausdorff sense, to the corresponding model space.

7. 报告题目 **Title：Quantitative Stability for Critical Elliptic Equations Beyond Euclidean Space**

报告人 **Speaker：** Seunghyeok Kim (Hanyang University)

报告摘要 **Abstract：** Motivated by recent quantitative stability results for critical elliptic equations in Euclidean space, I will discuss analogous questions in geometric and bounded-domain settings, where the geometry of the manifold or the presence of the boundary introduces new phenomena. In particular, I will present sharp stability estimates for the Yamabe problem on closed Riemannian manifolds and for the Brezis–Nirenberg problem on bounded domains, emphasizing how the underlying geometry, background solutions, and bubble interactions affect the optimal rates. I will also discuss recent extensions of the Yamabe stability theory to multi-bubble configurations and to the case where the Weyl tensor and several of its covariant derivatives vanish at the concentration point. This talk is based on joint work with Haixia Chen (CCNU) and Juncheng Wei (CUHK).

8. 报告题目 Title：Existence of stability optimizers for Yamabe-type inequalities

报告人 Speaker： Tobias König (Institut für Mathematik, Goethe-Universität Frankfurt)

报告摘要 Abstract： The well-known stability inequality due to Bianchi and Egnell (1991) bounds the deficit of the Sobolev inequality from below by a non-explicit positive constant c_{BE} times the $\dot{H}^1$-distance to the set of optimizers to the power two. While the power two is optimal, it is a major open question to determine the sharp value of c_{BE}. More recently, Engelstein, Neumayer and Spolaor (2022) have proved an analogous stability inequality for the Yamabe quotient on arbitrary closed Riemannian manifolds. The power two of the distance still appears generically, but explicit examples of manifolds are known for which degenerate stability occurs, i.e. the power of the distance is strictly higher than two. As a step towards determining the optimal stability constant c_{BE}, in this talk I will present an overview of recent results concerning the existence and non-existence of stability optimizers, both for Euclidean Sobolev inequalities and Yamabe inequalities on general manifolds, including the degenerate stability case. It turns out that the existence of stability optimizers displays a surprisingly rich behavior which depends in a remarkable way on the space dimension $d \geq 1$ and other parameters.

9. 报告题目 Title：A Quantitative Pólya–Szegő Theorem for Tangential Polygons

报告人 Speaker： Qinfeng Li (Hunan University)

报告摘要 Abstract： For a bounded Lipschitz domain $\Omega \subset \mathbb{R}^2$, let $T(\Omega) = \int_\Omega u_\Omega dx$ denote its torsional rigidity, where $-\Delta u_\Omega = 1$ in Ω and $u_\Omega = 0$ on $\partial\Omega$. We prove a quantitative Pólya–Szegő inequality for tangential polygons. Let $N \geq 3$, let P be a tangential N-gon, set $A = |P|$, and let R_N be the regular N-gon of area A. Writing $L(\cdot)$ for perimeter, we obtain the explicit deficit estimate

$$T(R_N) - T(P) \geq \frac{A^2}{8N\tan(\pi/N)}\left(1 - \frac{L(R_N)^2}{L(P)^2}\right)^2.$$

Thus, at fixed area, the torsional deficit is controlled from below purely by the perimeter ratio. In particular, the regular N-gon is the unique maximizer of torsional rigidity among tangential N-gons of prescribed area; for $N = 3$ this gives the classical triangular Pólya–Szegő theorem with a quantitative estimate. The same perimeter estimate yields an explicit positive lower bound for $T(R_{N+1}) - T(R_N)$ for equal-area regular polygons, and hence a rather short alternative proof of the strict monotonicity of torsional rigidity in N.

10. 报告题目 Title： Non-radial solutions for critical elliptic equations with the Hénon potential

报告人 Speaker： Yuan Li (Yunnan University)

报告摘要 Abstract： In this talk, we present two classes of critical elliptic equations with the Hénon potential. By applying bifurcation theory, we prove that non-radial solutions bifurcate from radial solutions at certain values of the potential parameter.

11. 报告题目 Title：Singular set estimates in quasilinear Alt–Caffarelli problems

报告人 Speaker： Robin Neumayer (Carnegie Mellon University)

报告摘要 Abstract： We study minimizers for a one-phase free boundary problem associated with uniformly elliptic variational integrals. We show that free boundaries are regular outside a singular set of codimension-two Hausdorff measure zero. This talk is based on joint work with A. De Rosa and H. Yu.

12. 报告题目 Title：Stability of Sobolev inequalities on manifolds with Ricci curvature lower bounds

报告人 Speaker： Francesco Nobili (Università degli Studi di Napoli Federico II)

报告摘要 Abstract： The stability problem for the Sobolev inequality in Euclidean space asks whether functions that nearly achieve equality must be close to the family of optimizers. This question has attracted significant attention in recent years, and stability estimates are by now well understood. In contrast, on Riemannian manifolds, the presence of curvature gives rise to new phenomena and leads to novel stability questions even in the absence of optimizers. In this talk, we present recent results on the stability of Sobolev inequalities on Riemannian manifolds, obtained in collaboration with D. Parise and I. Y. Violo. After a brief overview of the Euclidean theory as motivation, we discuss both quantitative and qualitative stability results for different Sobolev-type inequalities of geometric and functional nature. Particular attention will be devoted to the role of Ricci curvature lower bounds and to the use of nonsmooth methods, including generalized concentration-compactness principles. Along the way, we discuss some problems and perspectives under nonnegative curvature assumptions.

13. 报告题目 Title：The sharp σ_k -curvature inequality on locally conformally flat manifolds in quantitative form

报告人 Speaker： Jonas Peteranderl (Ludwig-Maximilians-Universität München)

报告摘要 Abstract： Let $2 \le k < n/2$ and let $(M^n,[g])$ be a smooth, closed, connected, and locally conformally flat Riemannian manifold with a k-admissible metric in the conformal class $[g]$. We prove a stability result of the σ_k-curvature inequality on M, in the sense that if equality is almost satisfied for some conformal metric, then its conformal factor is close to a minimizer of the inequality. Closeness is measured quantitatively in terms of Sobolev norms of the conformal factor, namely with respect to the $W^{1,2}$ - and the $W^{1,2k}$ -norm. In the non-degenerate case, these norms come with optimal exponents 2 and $2k$, respectively, whereas in general the exponents are $2+\gamma$ and $\max\{2k, 2+\gamma\}$ for some $\gamma \ge 0$ originating from a Łojasiewicz inequality. This extends a previous result by Frank and the author from $k=2$ and the sphere to $2 \le k < n/2$ and the full class of manifolds originally considered by Viaclovsky. It also extends a previous result by Engelstein–Neumayer–Spolaor from $k=1$ to the setting of fully non-linear scalar curvatures.

14. 报告题目 Title：Conformal Metrics on the Unit Ball with Constant Q-Curvature, Constant T-Curvature, and Minimal Boundary

报 告 人 Speaker： Liming Sun (Academy of Mathematics and Systems Science, CAS)

报告摘要 Abstract： We completely classify conformal metrics on the unit ball $\left(\mathbb{B}^{n+1},|dx|^2\right)$, $n\geq 4$, with positive constant Q-curvature, positive constant T-curvature, and minimal boundary. After normalizing the Q-curvature, there is a unique conformal metric for each T-curvature value in $[0,+\infty)$, up to conformal diffeomorphism. For positive T-curvature, these metrics are not Einstein and yield a new family of bubble profiles, distinct from the Aubin–Talenti bubble family except when $T=0$. This new phenomenon has no analogue in either the second-order boundary Yamabe problem or the constant Q-curvature problem on closed manifolds. To our knowledge, this is the first classification result for a fourth-order boundary value problem with nonlinear terms both in the interior and on the boundary. This is joint work with Shihong Zhang and Heming Wang.

15. 报告题目 Title：Existence of minimizers for the stability constant of a fractional nonlocal Sobolev-type inequality

报告人 Speaker： Xingliang Tian (Chengdu University of Technology)

报告摘要 Abstract： In this talk, we show that the stability constant c_{NS} for a fractional nonlocal Sobolev-type inequality is attained for every $N \geq 2$, $0 < s < N/2$ and $0 < \alpha < N$, where

$$c_{\mathrm{NS}} := \inf_{\dot{H}^s(\mathbb{R}^N)\setminus\mathcal{M}} \frac{\|(-\Delta)^{\frac{s}{2}}u\|_2^2 - \mathcal{S}_\alpha \left(\int_{\mathbb{R}^N} (|x|^{-\alpha} \star |u|^{2^*_{s,\alpha}})|u|^{2^*_{s,\alpha}} \mathrm{d}x\right)^{\frac{1}{2^*_{s,\alpha}}}}{\inf_{v\in\mathcal{M}} \|(-\Delta)^{\frac{s}{2}}(u-v)\|_2^2} > 0,$$

$2^*_{s,\alpha} = (2N-\alpha)/(N-2s)$ is the Hardy–Littlewood–Sobolev upper critical exponent. The proof builds upon the recent work of König [J. Eur. Math. Soc., 2025] on the existence of minimizers for the classical Sobolev stability constant, and extends it to the nonlocal setting. A central difficulty arises in the regime $4s < \alpha < N$, i.e., $1 < 2^*_{s,\alpha} < 2$, and the standard Taylor expansion is no longer applicable. To circumvent this obstacle, we develop a refined compactness argument, inspired by Figalli and Zhang [Duke Math. J., 2022], that handles the subquadratic growth of the nonlinearity. Our analysis yields $c_{NS} > c_{BE}$, with c_{BE} the classical Bianchi–Egnell constant, showing that the nonlocal term improves the stability constant.

16. 报告题目 Title：On generalized Chang–Yang conjecture and Dolbeault Conjuecture

报告人 Speaker： Juncheng Wei (The Chinese University of Hong Kong)

报告摘要 Abstract： In this talk I will present proofs of two conjectures:

Generalized Chang-Yang Conjecture: for every integer $N \geq 3$ and $\alpha \geq \frac{1}{2}$, Beckner's Inequality

$$\frac{\alpha}{2}\int_{\mathbb{S}^N} u(P_N u)dw + (N-1)!\int_{\mathbb{S}^N} udw - \frac{(N-1)!}{N}\log\int_{\mathbb{S}^N} e^{Nu}dw \geq 0$$

holds for every $u \in H^{\frac{N}{2}}(\mathbb{S}^N)$ whose center of mass is at the origin. Here P_N is the conformal GLMS operator of order N on $\mathbb{S}^N$.

Dolbeault Conjecture: Let $N \geq 3$. For every real-valued antipodally even function $u \in H^1(\mathbb{S}^N)$, it holds

$$\|u\|^2_{2N/(N-2)} \leq \frac{4 2^{-2/N}}{N(N-2)}\|\nabla u\|_2^2 + \|u\|_2^2.$$

17. 报告题目 Title：Half-space theorem for the Allen–Cahn equation

报告人 Speaker： Ke Wu (Yunnan Normal University)

报告摘要 Abstract： In this talk, we discuss the half-space theorem for entire solutions to the Allen–Cahn equation. We prove that a nonconstant entire solution of the Allen–Cahn equation with bounded density in dimension n is one-dimensional if its zero set is contained in

a half-space. We also prove a geometric version in which sublinear upper height of the transition region replaces every energy-growth assumption.

18. 报告题目 Title：A refined blow-up analysis of the Brezis–Nirenberg equation and its application: The one-bubble case for $N \geq 4$

报告人 Speaker： Yuanze Wu (Yunnan Normal University)

报告摘要 Abstract： In this talk, I will report our recent results in a joint work with Rui He, Xiangqing Liu and Juncheng Wei on the classification of the Struwe decomposition of the Brezis–Nirenberg equation for the one-bubble case and $N \geq 4$. As applications, we prove that the four-dimensional Brezis–Nirenberg equation has a least-energy sign-changing solution for all $\lambda > 0$ in any general bounded domain, which completes the existence theory of the Brezis–Nirenberg equation for $N \geq 4$ since 1984.

19. 报告题目 Title：Stability of Alexandrov's theorem and its applications

报告人 Speaker： Yi Zhang (Academy of Mathematics and Systems Science, CAS)

报告摘要 Abstract： Alexandrov's theorem states that any C^2-$(n-1)$ embedded -dimensional compact manifold in with constant mean curvature is a sphere. This result has been extended by Delgadino and Maggi to general sets of finite perimeter. In this talk, we discuss recent progress on the stability of this geometric rigidity theorem.

泛函不等式的稳定性及其相关偏微分方程会议

Workshop on Functional Inequalities, Their Stability and Related PDEs

参会名单

Attendee List

（按姓氏拼音字母排序）

(Sorted by surname in alphabetical order)

序号 No.	姓名 Name	单位 Institution	邮箱 Email
1	陈露 Lu Chen	北京理工大学 Beijing Institute of Technology	chenlu5818804@163.com
2	Giulio Ciraolo	米兰大学 Università degli Studi di Milano	giulio.ciraolo@unimi.it
3	邓圣兵 Shengbing Deng	西南大学 Southwest University	shbdeng@swu.edu.cn
4	Jean Dolbeault	巴黎第九大学 Université Paris Dauphine	dolbeaul@ceremade.dauphine.fr
5	Nicola Fusco	那不勒斯费德里克二世大学 Università degli Studi di Napoli Federico II	nfusco@unina.it
6	郭玉劲 Yujin Guo	华中师范大学 Central China Normal University	yguo@ccnu.edu.cn
7	Debabrata Karmakar	塔塔基础研究所应用数学中心 Centre for Applicable Mathematics, TIFR	debabrata@tifrbng.res.in
8	Seunghyeok Kim	汉阳大学 Hanyang University	shkim0401@hanyang.ac.kr
9	Tobias König	法兰克福大学数学研究所 Institut für Mathematik, Goethe-Universität Frankfurt	koenig@mathematik.uni-frankfurt.de
10	李沁峰 Qinfeng Li	湖南大学 Hunan University	liqinfeng@hnu.edu.cn
11	李小亮 Xiaoliang Li	米兰大学 University of Milan	xiaoliang.li@unimi.it
12	刘祥清 Xiangqing Liu	云南师范大学 Yunnan Normal University	liuxiangqing@ynnu.edu.cn
13	李圆 Yuan Li	云南大学 Yunnan University	
14	Robin Neumayer	卡内基梅隆大学 Carnegie Mellon University	neumayer@cmu.edu

15	Francesco Nobili	那不勒斯费德里克二世大学 Università degli Studi di Napoli Federico II	francesco.nobili@unina.it
16	Jonas Peteranderl	慕尼黑大学 Ludwig-Maximilians-Universität München	peterand@math.lmu.de
17	孙黎明 Liming Sun	中国科学院数学与系统科学研究院 Academy of Mathematics and Systems Science, CAS	lmsun@amss.ac.cn
18	田兴亮 Xingliang Tian	成都理工大学 Chengdu University of Technology	xltian@cdut.edu.cn
19	魏军城 Juncheng Wei	香港中文大学 The Chinese University of Hong Kong	wei@math.cuhk.edu.hk
20	吴科 Ke Wu	云南师范大学 Yunnan Normal University	wuke2002@126.com
21	吴轲 Ke Wu	云南师范大学 Yunnan Normal University	kewu@ynnu.edu.cn
22	吴元泽 Yuanze Wu	云南师范大学 Yunnan Normal University	yuanze.wu@ynnu.edu.cn
23	杨雅博 Yabo Yang	北京理工大学 Beijing Institute of Technology	Yabo_Yang0927@outlook.com
24	张翼 Yi Zhang	中国科学院数学与系统科学研究院 Academy of Mathematics and Systems Science, CAS	yzhang@amss.ac.cn
25	张倩 Qian Zhang	福建师范大学 Fujian Normal University	zhangq@fjnu.edu.cn
26	邹文明 Wenming Zou	清华大学 Tsinghua University	zou-wm@mail.tsinghua.edu.cn