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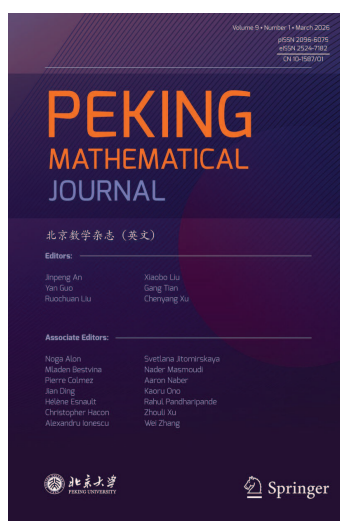
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2026 Peking Mathematical Journal Conference will take place at Enshi, Hubei Province, from July 17 to July 21, 2026. It is jointly organized by Beijing International Center for Mathematical Research and School of Mathematical Sciences of Peking University, Tianyuan Mathematical Center in Central China, School of Mathematics and Statistics of Wuhan University, and School of Mathematics and Statistics of Hubei Minzu University. It features 11 one-hour talks from the authors of Peking Mathematical Journal, covering topics such as algebra, analysis, geometry, and topology, reporting the latest academic research progress and promoting exchanges and cooperation among scholars in the field of mathematics.

Peking Mathematical Journal (ISSN 2096-6075, Electronic ISSN 2524-7182, CN 10-1587/O1), a quarterly journal established in 2018 and published by Springer and Peking University Press, aims to publish research papers with broad scope which includes all core topics of pure mathematics. It is operated by the Beijing International Center for Mathematical Research and School of Mathematical Sciences of Peking University. All contributions are required to meet high standards of quality and originality.

Journal Homepage: link.springer.com/journal/42543

Submission Website: www.editorialmanager.com/pkmj

2026 Peking Mathematical Journal Conference Schedule

Venue: Large Conference Room, 3rd Floor of Conference Center, Enshi Wangchenfeng Hotel
(恩施忘尘峰大酒店会务中心三楼大会议室)

July 17, 2026 (Friday)	
08:00–24:00	Arrival (报到)
18:00–19:30	Dinner: Buffet (自助晚餐)
19:30–21:30	Editorial Board Meeting of <i>Peking Mathematical Journal</i> (PMJ 编委会议)

July 18, 2026 (Saturday)		
Time	Speaker	Title
08:30–09:10	Opening Ceremony (开幕式)	
Chair: Gang TIAN (田刚), Peking University		
09:10–10:10	Zhiwei YUN (恽之玮) Massachusetts Institute of Technology	Affine Toda System, Mirror Symmetry and Wild Geometric Langlands
10:10–10:30	Tea Break (茶歇)	
10:30–11:30	Chi LI (李驰) Rutgers University	On the Volume of Kähler–Einstein Fano Varieties
11:30–13:00	Lunch: Buffet (自助午餐)	
Chair: Kaoru ONO (小野 薫), Kyoto University		
14:00–15:00	Yi NI (倪忆) California Institute of Technology	Generation of 3-manifolds Through Surgery Triads
15:10–16:10	Xin ZHOU (周鑫) Cornell University	On Yau’s Four Minimal Spheres Conjecture
16:20–17:20	Anish GHOSH Tata Institute of Fundamental Research	Probabilistic Results in Diophantine Approximation via Homogeneous Dynamics
18:00–20:00	Banquet (晚宴)	

Banquet Venue (Evening, July 18):
Banquet Hall, 2nd Floor of Conference Center (会务中心二楼宴会厅)

Breakfast/Bufferet Venue: (Breakfast Time: 07:00–08:30)
Banquet Hall, 1st Floor of Conference Center (会务中心一楼宴会厅)

July 19, 2026 (Sunday)		
Time	Speaker	Title
Chair: Jinpeng AN (安金鹏), Peking University		
09:00–10:00	Xiao ZHANG (张晓) AMSS, CAS; Guangxi University	The Bondi Energy-momentum for the Einstein-scalar Fields
10:00–10:30	Tea Break (茶歇)	
10:30–11:30	Guozhen WANG (王国祯) Fudan University	Periodicity in Homotopy Theory
11:30–13:00	Lunch: Buffet (自助午餐)	
Chair: Xiaobo LIU (刘小博), Peking University		
14:00–15:00	Chao XIA (夏超) Xiamen University	Reilly-type Integral Formula and Applications
15:10–16:10	Wenshuai JIANG (江文帅) Zhejiang University	Bounded Diameter and Finite Measure Estimate of the Singular Set of Mean Curvature Flow
16:20–17:20	Shaoming GUO (郭少明) Nankai University	Oscillatory Integrals on Manifolds and Their Applications
18:00–19:30	Dinner: Buffet (自助晚餐)	

July 20, 2026 (Monday)		
Time	Speaker	Title
Chair: Liming TANG (唐利明), Hubei Minzu University		
08:00–09:00	Sian NIE (聂思安) AMSS, CAS	Symmetric Spaces over a Finite Ring
09:00–11:30	Free Discussion (自由讨论)	
11:30–13:00	Lunch: Buffet (自助午餐)	
14:00–18:00	Free Discussion (自由讨论)	
18:00–19:30	Dinner: Buffet (自助晚餐)	

July 21, 2026 (Tuesday)	
06:00–24:00	Departure (离会)

Hotel: Enshi Wangchenfeng Hotel (恩施忘尘峰大酒店)

Address: Wangchengpo Village, Xiaoduchuan Subdistrict, Enshi City, Hubei Province

(湖北省恩施市小渡船街道望城坡村 (望城坡山顶))

Tel: +86 718 8221188



北京国际数学研究中心
BEIJING INTERNATIONAL CENTER FOR
MATHEMATICAL RESEARCH



北京大学数学科学学院
School of Mathematical Sciences
Peking University

Titles and Abstracts of One-hour Talks

(Sorted Alphabetically by Last Names)

Probabilistic Results in Diophantine Approximation via Homogeneous Dynamics

Anish GHOSH (Tata Institute of Fundamental Research)

Abstract: I will discuss some applications of results in the ergodic theory of group actions on homogeneous spaces, to problems in Diophantine approximation.

Oscillatory Integrals on Manifolds and Their Applications

Shaoming GUO (Nankai University)

Abstract: This talk will focus on oscillatory integrals on manifolds. We will also discuss the L^p estimates for eigenfunctions of the Laplace–Beltrami operator corresponding to large eigenvalues on manifolds. This is a joint work with Song Dai and Liuwei Gong.

Bounded Diameter and Finite Measure Estimate of the Singular Set of Mean Curvature Flow

Wenshuai JIANG (Zhejiang University)

Abstract: In this talk, we will study the mean curvature flow in $\mathbb{R}^3$. It is well known that finite-time singularities are inevitable, hence an interesting problem in the study of mean curvature flow is to understand the size of the singular set and the geometry of the flow near singularities. We will show that the intrinsic diameter is uniformly bounded as one approach the singular time, which confirms a conjecture of Haslhofer, and we show that the singular set has finite 1-Hausdorff measure. This is a joint work with Yiqi Huang.

On the Volume of Kähler–Einstein Fano Varieties

Chi LI (Rutgers University)

Abstract: I will talk about a joint work with Minghao Miao, which proves that: in any dimension n , the second largest volume of Kähler–Einstein Fano manifolds is obtained exactly by the volume of quadric hypersurface and the product $\mathbb{C}P^1 \times \mathbb{C}P^{n-1}$. We prove this by using the valuative theory of K-stability and its new connection with minimal rational curves on Fano manifolds. The singular case will also be discussed in its relation to the volume of Klt singularities.

Generation of 3-manifolds Through Surgery Triads

Yi NI (California Institute of Technology)

Abstract: Surgery triad is an important concept in various versions of Floer homology theories of 3-manifolds. If three 3-manifolds form a surgery triad, then the Floer homology of these three manifolds are usually related by an exact triangle. A strategy of proving certain isomorphism theorems for Floer homology is to use exact triangles and naturality. In order to apply this strategy, we often need finite generation results for a class of 3-manifolds through surgery triads. For example, a folklore theorem asserts that all closed oriented connected 3-manifolds are generated by the 3-sphere through surgery triads. In this talk, we will review the above strategy and discuss the proof of the above folklore theorem and its generalization to a class of sutured manifolds.

Symmetric Spaces over a Finite Ring

Sian NIE (Academy of Mathematics and Systems Science, CAS)

Abstract: Deep level Deligne–Lusztig representations are natural extensions of the classical Deligne–Lusztig representations from the setting of finite fields to finite rings. Recently these representations have found many interesting applications in Langlands program. In this talk, I will discuss the distinction problem of deep level Deligne–Lusztig representations for symmetric pair, extending a classical result of Lusztig on symmetric spaces over a finite field. This is based on joint work with Ben Liu.

Periodicity in Homotopy Theory

Guozhen WANG (Fudan University)

Abstract: One key feature of K theory is its 2-fold periodicity and the 8-fold periodicity in KO theory. There is a series of periodic generalized homology theories called Morava E theory which leads to chromatic homotopy theory. We will give an introduction to our recent work on determining the period of the higher chromatic analogues of KO theory and some applications in homotopy theory.

Reilly-type Integral Formula and Applications

Chao XIA (Xiamen University)

Abstract: Reilly formula is integral version of Bochner formula for manifolds with boundary. In this talk, we discuss generalizations of Reilly-type integral formulas and their applications in various geometric problems.

Affine Toda System, Mirror Symmetry and Wild Geometric Langlands

Zhiwei YUN (Massachusetts Institute of Technology)

Abstract: Affine Toda system is a remarkable integrable system canonically constructed from a semisimple group. It can be viewed as a special case of wild Hitchin systems. In joint work with Xin Jin, we prove a mirror symmetry equivalence relating the wrapped Fukaya category of the affine Toda system on the one hand, and coherent sheaves on the regular centralizer group scheme for the Langlands dual group on the other. This can be interpreted as an instance of wildly ramified geometric Langlands correspondence.

The Bondi Energy-momentum for the Einstein-scalar Fields

Xiao ZHANG

(Academy of Mathematics and Systems Science, CAS; Guangxi University)

Abstract: Inspired by interaction of gravitational waves and dark matters, we study the Bondi-Sachs metrics for Einstein massless scalar fields with zero cosmological constant. We provide asymptotic expansions for the Bondi-Sachs metrics as well as the scalar fields and prove the positivity of the Bondi energy-momentum under condition $c = d = 0$ at some retarded time u_0 . This condition ensures that asymptotically null hypersurfaces near $u = u_0$ are asymptotically null initial data sets of order 2 and the positive energy theorem for null infinity can be applied. The talk is based on the joint work with Jialue Li.

On Yau's Four Minimal Spheres Conjecture

Xin ZHOU (Cornell University)

Abstract: In 1980, S.-T. Yau conjectured that every Riemannian manifold diffeomorphic to S^3 must contain at least four embedded minimal 2-spheres. We will survey some recent progress on this conjecture. The talk is based on joint work with Zhichao Wang.

Conference Map



Contact:

Ruixin Li: liruixin@bicmr.pku.edu.cn

Kaifu Niu: pmj@math.pku.edu.cn, 13121638428

Shuang Mou: 18372500295