



武汉大学

**The International Conference on
Probabilistic Approach to Harmonic Analysis**

May 18-22, 2017



Collaborative Innovation Center of Mathematics

School of Mathematics and Statistics

Wuhan University

Wuhan, 430079, P. R. China

The International Conference on Probabilistic Approach to Harmonic Analysis

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Objective

In order to strengthen the interaction among harmonic analysis, probability theory and functional analysis, an international conference will be held at the School of Mathematics and Statistics, Wuhan University from May 18 to May 22, 2017.

The conference will mainly cover topics on (classical, vector-valued and non-commutative) harmonic analysis and probability theory as well as their applications in various fields such as functional analysis and PDEs etc.

Academic Committee

Hua Chen (Wuhan University) (Co-chair)
Shanzhen Lu (Beijing Normal University) (Co-chair)
Quanhua Xu (University of Franche-Comte) (Co-chair)
Yong Ding (Beijing Normal University)
Heping Liu (Peking University)
Peide Liu (Wuhan University)
Weiyi Su (Nanjing University)
Silei Wang (Zhejiang University)

Local Organizing Committee

Qingquan Deng (Central China Normal University)
Guixiang Hong (Wuhan University)
Tao Ma (Wuhan University)
Mu Sun (Huazhong University of Science and Technology)
Maofa Wang (Wuhan University)
Xiaohua Yao (Central China Normal University)
Ping Zhong (Wuhan University)

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Schedule

| May 18 | May 19 | | May 20 | | May 21 | | May 22 | | | | |
|------------------------------|-------------|---------------------|-------------|-------------|-----------------|--|-------------|--------------------|-------------|-------------|--------------|
| Registration in Hotel | Venue | Auditorium | | Venue | Auditorium | | Venue | Auditorium | | | |
| | 08:30-08:40 | Opening | | 08:30-09:10 | Silei Wang | | 08:30-09:10 | Zeqian Chen | 08:30-09:10 | Shanzhen Lu | |
| | 08:40-09:20 | Marius Junge | | 09:15-09:55 | Lixin Cheng | | 09:15-09:55 | Zhifei Zhang | 09:15-09:55 | Weiyi Su | |
| | 09:25-10:05 | Dachun Yang | | 09:55-10:25 | Break | | 09:55-10:25 | Break | | 09:55-10:25 | Break |
| | 10:05-10:35 | Photo and break | | 10:25-11:05 | Javier Parcet | | 10:25-11:05 | Adam Skalski | | 10:25-11:05 | Hongquan Li |
| | 10:35-11:15 | Fengyu Wang | | 11:10-11:50 | Tao Mei | | 11:10-11:50 | Uwe Franz | | 11:10-11:50 | Yong Ding |
| | 11:20-12:00 | Guozhen Lu | | | | | | | | | |
| | 12:20 | Xing Hu Yuan | | 12:00 | Xing Hu Yuan | | 12:00 | Xing Hu Yuan | | 12:00 | Hotel |
| | Venues | Auditorium | Lect room | Venue | Auditorium | | Venue | Auditorium | | Venue | Auditorium |
| | 14:30-15:00 | Wen Yuan | Yong Jiao | 14:30-15:00 | Huoxiong Wu | | 14:10-14:50 | Quanhua Xu | | 14:10-14:50 | Wenchang Sun |
| | 15:05-15:35 | Peng Chen | Xiao Xiong | 15:05-15:35 | Liang Song | | 14:55-15:35 | Turdebek N. Bekjan | | 14:50-15:20 | Break |
| | 15:40-16:10 | Wei Chen | Runlian Xia | 15:40-16:10 | Renjin Jiang | | 15:40-16:10 | Li Gao | | 15:20-16:20 | Discussion |
| | 16:10-16:40 | Break | | 16:10-16:40 | Break | | 16:10-16:40 | Break | | 16:25-17:25 | Discussion |
| | 16:40-17:20 | Sundaram Thangavelu | | 16:40-17:20 | Martijn Caspers | | 16:40-17:20 | Heping Liu | | | |
| | 17:40 | Xing Hu Yuan | | 18:00 | Banquet | | 17:40 | Xing Hu Yuan | | 17:40 | Hotel |

Morning, May 19

(5月19日上午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 08:30-08:40 | Opening | Host(主持人) Hua Chen (陈化) |
| Time (时间) | Program (报告内容) | |
| 08:40-09:20 | Diagonals and kernels Marius Junge | Quanhua Xu (许全华) |
| 09:25-10:05 | Variable Weak Hardy Spaces and Their Applications Dachun Yang (杨大春) | |
| 10:05-10:35 | Photo and break | |
| 10:35-11:15 | High Order Eigenvalues for Non-Local Schrödinger Operators Fengyu Wang (王凤雨) | Jiecheng Chen (陈杰诚) |
| 11:20-12:00 | Sharp Sobolev inequality for Paneitz operators on hyperbolic spaces and Hardy-Adams and high order Hardy-Sobolev-Mazya inequalities Guozhen Lu (陆国震) | |
| 12:20 | Xing Hu Yuan Restaurant (Lunch) | |

Afternoon, May 19

(5月19日下午报告安排)

| Venue 1: Auditorium (1st floor) (一楼礼堂) | | |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 14:30-15:00 | The Gaussian Capacities Wen Yuan (袁文) | Tao Ma (马涛) |
| 15:05-15:35 | Characterization of compactness of the commutators of bilinear Riesz transforms Peng Chen (陈鹏) | |
| 15:40-16:10 | Weighted estimates for the multilinear maximal function on the upper half-spaces Wei Chen (陈伟) | |
| 16:10-16:40 | Break | |
| 16:40-17:20 | Hardy type inequalities for fractional powers of the sub-Laplacian on Heisenberg groups Sundaram Thangavelu | Heping Liu (刘和平) |
| 17:40 | Xing Hu Yuan Restaurant (Dinner) | |

Afternoon, May 19

(5月19日下午报告安排)

| Venue 2: Lecture room (2st floor) (2楼报告厅) | | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 14:30-15:00 | Noncommutative dyadic martingales and Walsh-Fourier series Yong Jiao (焦勇) | Xiaohua Yao (尧小华) |
| 15:05-15:35 | Twisted L_1 algebra Xiao Xiong (熊梟) | |
| 15:40-16:10 | Pseudo-differential operators on operator-valued local Hardy spaces Runlian Xia (夏润莲) | |
| 16:10-16:40 | Break | |
| 16:40-17:20 | | |
| 17:40 | Xing Hu Yuan Restaurant (Dinner) | |

Morning, May 20

(5月20日上午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 08:30-09:10 | Some Problems on Multidimensional Hausdorff Operators Silei Wang (王斯雷) | Weiyi Su (苏维宜) |
| 09:15-09:55 | On perturbed isometry, isometry and linear isometry of Banach spaces Lixin Cheng (程立新) | |
| 09:55-10:25 | Break | |
| 10:25-11:05 | Singular integrals and PDEs Javier Parcet | Yong Ding (丁勇) |
| 11:10-11:50 | BMO, H^∞ Calculus and Subordinated Semigroup of Operators Tao Mei (梅涛) | |
| 12:00 | Xing Hu Yuan Restaurant (Lunch) | |

Afternoon, May 20

(5月20日下午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 14:30-15:00 | Some problems related to Bessel operator Huoxiong Wu (伍火熊) | Hongquan Li (李洪全) |
| 15:05-15:35 | Boundary Korn Inequality and Neumann Problems in Homogenization of Systems of Elasticity Liang Song (宋亮) | |
| 15:40-16:10 | Riesz transform on manifolds with ends Renjin Jiang (蒋仁进) | |
| 16:10-16:40 | Break | |
| 16:40-17:20 | Weight lifting with ultrapowers Martijn Caspers | Jinsong Wu (吴劲松) |
| 18:00 | Banquet | |

Morning, May 21

(5月21日上午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 08:30-09:10 | An infinite linear hierarchy for the classical Navier-Stokes equation Zeqian Chen (陈泽乾) | Shangquan Bu (步尚全) |
| 09:15-09:55 | Linear inviscid damping and vorticity depletion for shear flows Zhifei Zhang (章志飞) | |
| 09:55-10:25 | Break | |
| 10:25-11:05 | (Very) abstract harmonic analysis in the locally compact quantum group setting---study of quantum subgroups Adam Skalski | Zhongkai Li (李仲恺) |
| 11:10-11:50 | Heat semigroups on compact quantum groups and their homogeneous spaces Uwe Franz | |
| 12:00 | Xing Hu Yuan Restaurant (Lunch) | |

Afternoon, May 21

(5月21日下午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 14:10-14:50 | Function spaces on Quantum Torus Quanhua Xu (许全华) | Maofa Wang (王茂发) |
| 14:55-15:35 | Interpolation of noncommutative symmetric Hardy spaces Turdebek N. Bekjan (吐尔德别克) | |
| 15:40-16:10 | Pseudo-differential Calculus on Noncommutative Euclidean Spaces Li Gao (高力) | |
| 16:10-16:40 | Break | |
| 16:40-17:20 | Local estimates of Schrodinger maximal operator on H-type groups Heping Liu (刘和平) | Wenchang Sun (孙文昌) |
| 17:40 | Xing Hu Yuan Restaurant (Dinner) | |

Morning, May 22

(5月22日上午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|----------------------------------------------------------------------------|---------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 08:30-09:10 | Some Problems on Hardy Operators Shanzhen Lu (陆善镇) | Silei Wang (王斯雷) |
| 09:15-09:55 | Harmonic analysis over local fields Weiyi Su (苏维宜) | |
| 09:55-10:25 | Break | |
| 10:25-11:05 | Some maximal inequalities on product manifolds Hongquan Li (李洪全) | Tao Mei (梅涛) |
| 11:10-11:50 | On christ-Journe type commutators Yong Ding (丁勇) | |
| 12:00 | Junyi Dynasty Hotel (Lunch) | |

Afternoon, May 22

(5月22日下午报告安排)

| Venue: Auditorium (1st floor) (一楼礼堂) | | |
|---------------------------------------------|--------------------------------------------------------|----------------------|
| Time (时间) | Program (报告内容) | Host(主持人) |
| 14:10-14:50 | Sampling in spline spaces Wenchang Sun (孙文昌) | Javier Parcet |
| 14:50-15:20 | Break | |
| 15:20-16:20 | Discussion | Shanzhen Lu (陆善镇) |
| 16:25-17:25 | Discussion | Adam Skalski |
| 17:40 | Junyi Dynasty Hotel (Dinner) | |

List of participants

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