

第二届雷电物理和雷电气象学 国际研讨会 (ISLPM 2025)

2nd International Symposium on Lightning Physics
and Lightning Meteorology (ISLPM 2025)

会议手册 Handbook

中国·北京 2025年6月3-6日
Beijing·China June 3-6, 2025



一、会议信息

会议时间：2025年6月3-6日

会议地点：北京友谊宾馆 贵宾楼二楼多功能厅

报到时间：6月3日 14:00-20:00

6月4日 08:00-08:30

报到地点：6月3日 友谊宾馆迎宾楼一楼大厅

6月4日 贵宾楼二楼多功能厅

二、会议住宿

入住酒店：友谊宾馆迎宾楼

地 址：北京市海淀区中关村南大街1号

电 话：010-68498888

三、会议用餐

6月3日 晚餐：友谊宫一楼自助餐厅

6月4日 午餐：友谊宫一楼自助餐厅 晚餐：祺菜餐厅（统一安排车辆往返）

6月5日 午餐：友谊宫一楼自助餐厅 晚餐：友谊宫一楼自助餐厅

6月6日 午餐：友谊宫一楼自助餐厅

四、会议联系人

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杨 静：15901223771 yangj@mail.iap.ac.cn

I. Conference Information

- **Dates:** June 3–6, 2025
- **Address:** Multi-Function Hall in Grand Building (2nd Floor), Beijing Friendship Hotel
- **Registration**
- **June 3** 14:00–20:00, Lobby (1st Floor), Building 3
- **June 4** 08:00-08:30, Multi-Function Hall in Grand Building (2nd Floor)

II. Accommodation

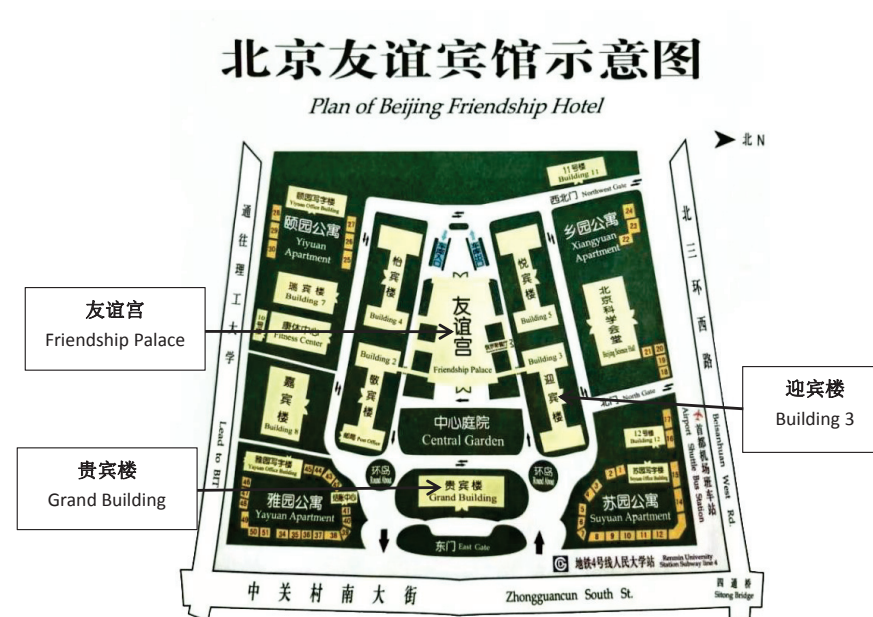
- **Hotel:** Building 3, Beijing Friendship Hotel
- **Address:** No. 1 Zhongguancun South Street, Haidian District, Beijing
- **Tel:** +86-10-6849 8888

III. Meals

- **June 3** Dinner – Coffeeshop (1st Floor, Friendship Palace)
- **June 4** Lunch – Coffeeshop (1st Floor, Friendship Palace)
Dinner – Qi Cai Restaurant (*Shuttle service provided*)
- **June 5** Lunch & Dinner – Coffeeshop (1st Floor, Friendship Palace)
- **June 6** Lunch – Coffeeshop (1st Floor, Friendship Palace)

IV. Contacts

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ISLPM 2025 General Schedule

Chair: Xiushu Qie, Co-Chairs: Weitao Lyu, Rubin Jiang

	Jun 3 (Tue.)	Jun 4 (Wed.)	
08:30-10:05		Opening Ceremony	Xiushu Qie
		Ningyu Liu (Invited Talk)	Chairs Weitao Lyu Shanfeng Yuan
		Zhuling Sun	
		Bin Hu	
		Panliang Gao	
10:05-10:30		Coffee Break	
10:30-12:00		Dmitry Iudin (Invited Talk)	Chairs Fengxia Guo Zhixiong Chen
		Rubin Jiang	
		Chen Xu	
		Tomoo Ushio	
	Fengxia Guo		
12:00-14:00	Lunch		
14:00-15:20	Registration	Ute Ebert (Invited Talk)	Chairs Rubin Jiang Dmitry Iudin
		Yunjiao Pu (Invited Talk)	
		Caixia Wang	
		Qi Qi	
15:20-15:30		Coffee Break	
15:30-16:15		Hepeng Zheng	Chairs Xiangpeng Fan Tingting An
		Ting Wu	
		Jizhou Feng	
16:15-18:00		POSTER	Chairs Zheng Shi Hepeng Zheng
18:00-		Banquet	

	Jun 5 (Thu.)		Jun 6 (Fri.)	
08:30-10:05	Mingli Chen (Invited Talk)	Chairs Gaopeng Lu Dongxia Liu	Serge Soula (Invited Talk)	Chairs Jing Yang Abhay Srivastava
	Shanfeng Yuan (Invited Talk)		Xiangpeng Fan (Invited Talk)	
	Abhay Srivastava		Feifan Liu	
	Liangtao Xu		Wei Xu	
	Dianhang Li		Hongbo Zhang	
10:05-10:30	Coffee Break			
10:30-12:00	Weitao Lyu (Invited Talk)	Chairs Panliang Gao Liangtao Xu	Shaolin Xiong (Invited Talk)	Chairs Fanchao Lyu Feifan Liu
	Gaopeng Lu (Invited Talk)		Yuansheng Zhang	
			Dongxia Liu	
			Yi Zhang	
			Lei Wei	
	Bin Wu		Closing Ceremony	Xiushu Qie
Wenjuan Zhang				
Haichao Wang				
12:00-14:00	Lunch			
14:00-15:20	Andrei Sinkevich (Invited Talk)	Chairs Yunjiao Pu Yang Zhao		
	Zhixiong Chen (Invited Talk)			
	Yi Yang			
	Yu Wang			
15:20-15:30	Coffee Break			
15:30-16:15	Tingting An	Chairs Wenjuan Zhang Yu Wang		
	Han Li			
	Yangli'ao Geng			
16:15-18:00	POSTER	Chairs Xuejuan Wang Shengxin Huang		
18:00-				

Oral Session

June 4 (Wed.)

08:30-8:45 *Opening Ceremony*

08:45-9:15 **The Physical Mechanism of Lightning HF-VHF Radio Emissions**
Ningyu Liu (Invited Talk) University of New Hampshire, USA

09:15-9:30 **Lateral Negative Re-discharges on the Negative Leader in a Positive Cloud-to-Ground Lightning Flash**
Zhuling Sun Institute of Atmospheric Physics, Chinese Academy of Sciences

09:30-9:45 **Positive Leaders Exhibit More Intense Branching Behavior under Lower Atmospheric Pressure**
Bin Hu Hefei University of Technology

09:45-10:00 **Characteristics of preliminary breakdown in inverted intracloud flashes**
Panliang Gao China Science Skyline Tech. Co.

10:00-10:30 *Coffee Break*

10:30-11:00 **Lightning polarity asymmetry: observed effects and physical mechanisms**
Dmitry Iudin (Invited Talk) Russian Academy of Sciences, Nizhny Novgorod, Russia

11:00-11:15 **Recent advances in rocket-triggered lightning and tall-tower lightning**
Rubin Jiang Institute of Atmospheric Physics, Chinese Academy of Sciences

11:15-11:30 **The chemical impact of Hunga volcanic lightning on sulfur**
Chen Xu Ludwig-Maximilians-Universität München, Germany

11:30-11:45 **Electrical Characteristics of Thunderstorm by Dual-polarization Phased Array Weather Radar**
Tomoo Ushio Osaka University, JAPAN

11:45-12:00 **Simulation Study on the Characteristics of Complex Charge Structure and Its Formation in Thunderstorms**
Fengxia Guo Nanjing University of Information Science & Technology

Lunch

14:00-14:30 **A review of the state of streamer research in models and experiments, and their relevance for thunderstorm discharges**
Ute Ebert (Invited Talk) Centrum Wiskunde & Informatica(CWI),the Netherlands

14:30-14:50 **Small Discharges at Thunderstorm Tops Imaged with VHF Interferometry**
Yunjiao Pu (Invited Talk) Electrical and Computer Engineering Department Duke University Durham NC USA

14:50-15:05 **The Influence of the Doppler Effect on Lightning Radiation Source Localization**
Caixia Wang Beijing Information Science & Technology University

15:05-15:20 **Two basic leader connection scenarios observed in cloud-to-ground lightning attachment process**
Qi Qi Chinese Academy of Meteorological Sciences

15:20-15:30 *Coffee Break*

15:30-15:45 **Turbulence Effects on Raindrop Microphysics: Observations from the 2D Video Disdrometer**
Hepeng Zheng National University of Defense Technology

15:45-16:00 **Energetic Compact Strokes (ECSs): The Strongest Negative Strokes in Winter Thunderstorms in Japan**
Ting Wu Gifu University, Japan

16:00-16:15 **The Impact of intracloud negative branches on continuing current in negative cloud-to-ground lightning**
Jizhou Feng Institute of Atmospheric Physics, Chinese Academy of Sciences

June 5 (Thu.)

8:30-9:00	Understanding the incloud ambient electrical conditions producing NBP and FPB events based on observation and modelling Mingli Chen (Invited Talk) The Hong Kong Polytechnic University
9:00-9:20	Lightning leaders' propagation and their effects Shanfeng Yuan (Invited Talk) Institute of Atmospheric Physics, Chinese Academy of Sciences
9:20-9:35	Understanding the impact of atmospheric Electric Field on the Drop Size Distribution Abhay Srivastava North Eastern Space Applications Centre, India
9:35-9:50	Numerical simulation of the electrification of thunderclouds using a bin microphysics model Liangtao Xu Chinese Academy of Meteorological Sciences
9:50-10:05	The Reactivation of Decayed Positive Leader with Sudden Channel Elongation in Laboratory Long Spark Dianhang Li Hefei University of Technology
10:05-10:30	Coffee Break
10:30-10:50	Research Progresses at the CMA Field Experiment Base on Lightning Sciences Weitao Lyu (Invited Talk) Chinese Academy of Meteorological Sciences
10:50-11:10	Studies of near-Earth space disturbances by thunderstorms and their impacts by integrating the observations of amateurs Gaopeng Lu (Invited Talk) University of Science and Technology of China
11:10-11:25	Dynamics of needles formed during the leader stage of a positive cloud-to-ground flash Bin Wu Chinese Academy of Meteorological Sciences
11:25-11:40	Preliminary evaluation of the FY-4A Lightning Mapping Imager (LMI) products Wenjuan Zhang Chinese Academy of Meteorological Sciences

11:40-11:55	Effects of aerosols on diurnal variation of lightning activity in the Sichuan Basin, China Haichao Wang Nanjing University of Information Science & Technology
	Lunch
14:00-14:30	Thunderstorms Features in Different Regions and Impact of Seeding on Electrical Characteristics Andrei Sinkevich (Invited Talk) Main Geophysical Observatory, Russia
14:30-14:50	Atmospheric composition variations under the influence of cut-off lows Zhixiong Chen (Invited Talk) Fujian Normal University
14:50-15:05	Experimental Study of Cloud-to-Ground Lightning Nowcasting with Multisource Data Based on a Video Prediction Method. Xinyu Cao Lanzhou University
15:05-15:20	AI-Based Method for Classifying Lightning Electric Field Change Waveforms and Associated Benchmark Dataset Yu Wang Wuhan NARI Limited Liability Company State Grid Electric Power Research Institute
15:20-15:30	Coffee Break
15:30-15:45	Temperature of natural ball lightning obtained by the spectral diagnosis Tingting An Northwest Normal University
15:45-16:00	High Spatial Resolution Regression Modeling of Ground Flash Density Using Random Forest with Geospatial Factors Han Li Wuhan University
16:00-16:15	Exploration of Artificial Intelligence Approaches for Short-Term Lightning Forecasting Yangli'ao Geng Beijing Jiaotong University

June 6 (Fri.)

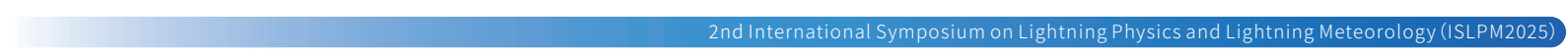
8:30-9:00	Recent studies on luminous phenomena above thunderstorms Serge Soula (Invited Talk) University of Toulouse, France
9:00-9:20	Regular Pulse Bursts: Near-Light-Speed Breakdown and Slow Propagation in Lightning Discharges Xiangpeng Fan (Invited Talk) Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences
9:20-9:35	Blue lightning in the upper atmosphere of deep convection Feifan Liu University of Science and Technology of China
9:35-9:50	Remote sensing of near-Earth space environment by ground-based VLF signal measurements Wei Xu Wuhan University
9:50-10:05	Characteristics and source altitude of terrestrial gamma-ray flashes based on satellite and high-SNR lightning measurements Hongbo Zhang Institute of Atmospheric Physics, Chinese Academy of Sciences
10:05-10:30	<i>Coffee Break</i>
10:30-10:50	TGF observations with GECAM and Insight-HXMT Shaolin Xiong (Invited Talk) Institute of High Energy Physics, Chinese Academy of Sciences
10:50-11:05	Thermal Deformation Correction for the FY-4A LMI Yuansheng Zhang Institute of Atmospheric Physics, Chinese Academy of Sciences
11:05-11:20	Investigating the role of dust particles in electrification and lightning polarity in a squall line by numerical simulation Dongxia Liu Institute of Atmospheric Physics, Chinese Academy of Sciences
11:20-11:35	Analysis of Lightning Characteristics in a Severe Convective Process based on FY-4A Satellite Data Yi Zhang Zhejiang Meteorological Safety Technology Center
11:35-11:50	Inverted tripole charge structure in a Tibetan Plateau thunderstorm Lei Wei Institute of Atmospheric Physics, Chinese Academy of Sciences
11:50-12:00	<i>Closing Ceremony</i>

Poster Session

1	Optimization of 3-D Lightning Time of Arrival (TOA) Localization Algorithm Assisted by Convolutional Neural Networks Yueyang Wang Army Engineering University of PLA
2	Lightning VHF radiation mapping method for an irregular short-baseline array Shanfang Yuan Institute of Atmospheric Physics, Chinese Academy of Sciences
3	Triggered Lightning Observation using Distributed Acoustic Sensing Heting Hong University of Science and Technology of China
4	Continental-scale Lightning Observations at High Frequency Yunjiao Pu Electrical and Computer Engineering Department Duke University Durham NC USA
5	Pulse parameters and peak currents of return strokes observed by Ningxia FALMA in the Chinese inland areas Dongdong Shi Yangzhou University
6	Non-time-synchronized lightning 3D localization method and error analysis Yanhui Wang Nanjing University of Information Science & Technology
7	Recoil leader formation: the mechanism of lightning channel decay and reactivation Dmitry Iudin Russian Academy of Sciences, Nizhny Novgorod, Russia
8	Lightning seed emergence due to collective interaction between streamers Dmitry Iudin Russian Academy of Sciences, Nizhny Novgorod, Russia
9	Precise determination of lightning plasma parameters based on a collisional-radiative model Yingying An Northwest Normal University
10	Quantitative spectral analysis of natural lightning return stroke followed by continuing current with M-components Xuejuan Wang Nanjing University of Information Science & Technology
11	Using the Stark broadening of the OI spectral line to diagnose the electron density of the propagating positive leader channels Zhiqiang Wang Hefei University of Technology

- 12 The difference in discharge behavior under the same applied voltage rise rate at different altitudes
Zimeng Zheng Hefei University of Technology
- 13 Numerical sensitivity studies on the effects of ice nucleating processes on electrification in thunderstorms
Zheng Shi Nanjing University of Information Science & Technology
- 14 Numerical Simulation of Charge Structure Evolution during the Feeder-Type Cells Merging
Jie Deng Nanjing University of Information Science & Technology
- 15 Analysis of the Spatiotemporal Distribution Characteristics of Lightning and the Parent Thunderstorms in Lake Taihu Region
Fanchao Lyu Chinese Academy of Meteorological Sciences
- 16 Characteristics and Analysis of Interannual Variability in Tornado Frequency
Kangkang Zhuang Nanjing University of Information Science & Technology
- 17 Characteristics of cloud-to-ground lightning in warm-season thunderstorms associated with the Northeast China cold vortex from 2017 to 2023
Guili Feng Shandong Research Institute of Meteorology
- 18 An operational and real-time severe weather nowcasting system based on lightning jumps: introduction and evaluation
Ye Tian Beijing Meteorological Bureau
- 19 Analysis of the Influence of the Asian Summer Monsoon on Lightning Activity over the Tibetan Plateau
Xinhai Fan Nanjing University of Information Science & Technology
- 20 Characteristics of Atmospheric Environmental Parameters for Tornado Events in China
Yang Zhao Nanjing University of Information Science & Technology
- 21 Analysis on Extreme Convective Storms in the Mainland of China Based on TRMM and GPM Satellites
Jiahao Lin Lanzhou University
- 22 Role of Atmospheric Water Content on Shaping Vertical Structure of Thunderstorms in South Asia
Xiaoteng Huang Lanzhou University
- 23 Analysis of Inverted Charge Structure and Lightning Activity during the 8.14 Local Hailstorm on the Qinghai - Tibet Plateau
Yajun Li Hexi University

- 24 A Preliminary Study on the Relationship between Atmospheric Electric Field and Atmospheric Pollutants in Beijing
Jingxiao Li Beijing Meteorological Bureau
- 25 Modeling the Effect of Adjacent Cloud-to-Ground Lightning Discharges on Sprites Initiation
Jinbo Zhang Jiangsu University of Science and Technology
- 26 Unveil the TGF-lightning relation with a large sample of TGFs detected by Insight-HXMT
Qibin Yi Institute of High Energy Physics, Chinese Academy of Sciences
- 27 An Improved TGF Searching on Insight-HXMT
Haoxuan Guo Institute of High Energy Physics, Chinese Academy of Sciences
- 28 Inventory of Nitrogen Oxide Emissions from Lightning Discharges in China
Miao He Nanjing University of Information Science & Technology
- 29 High resolution observation of particle precipitation by GECAM -- from milliseconds duration to oscillation
Chenwei Wang Institute of High Energy Physics, Chinese Academy of Sciences
- 30 WRF-Chem simulation of lightning activity and nitrogen oxides generated on the Qinghai Tibet Plateau
Letian Dai Institute of Atmospheric Physics, Chinese Academy of Sciences
- 31 Nowcasting of cloud-to-ground lightning location and frequency based on a deep learning technique
Fengquan Li
Wuhan NARI Limited Liability Company, State Grid Electric Power Research Institute, Wuhan, China
- 32 Characteristic analysis of lightning activities on the Yungui Plateau using ground-based remote sensing
Yinping Liu Nanjing University of Information Science & Technology
- 33 A Delayed Return Stroke Driven by Channel Charge Accumulation
Zhengqi Wang Institute of Atmospheric Physics, Chinese Academy of Sciences
- 34 Future Trend of Lightning Activity over the Tibetan Plateau Under Global Warming
Zifan Huang Institute of Atmospheric Physics, Chinese Academy of Sciences





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