CIPA 2025
$x = f^{-1}(y)$
July 17-21, 2025, Harbin Institute of Technology, Harbin, China

The 7th International Workshop on
Computational Inverse Problems and
Applications (CIPA2025)

An International Conference in Harbin Institute of Technology

July 17 – July 21, 2025

Visit at: https://www.smartchair.org/hp/CIPA2025/Home/

Conference chair:

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Jiaojiao Li：lijiaojiao@mail.iggcas.ac.cn

Aim and scope of the workshop:

The field of inverse problems has existed in many branches of earth sciences, physical sciences, engineering and mathematics for a long time. Inverse problems are typically ill-posed. In recent years, different inverse problems in frontiers of sciences appear. Standard methods for inverse problems are regularization methods. In addition, optimization methods are widely used in other science and engineering fields, for example, big data and intelligent computing, geophysical prospecting, transportation, biology, communication and image processing. Meanwhile, optimization methods have also been applied in computational inversion applications.

We welcome all experts, researchers and young students who work in inversion, optimization and application fields to attend this workshop in the Harbin Institute of Technology (HIT), Heilongjiang Province, so that we can exchange ideas, create sparks and highlight the future.

The discussion would be including the following topics (not limited):

- Inverse and ill-posed problems
- Regularization techniques and recent developments

- Optimization theory and methods
- Nonstandard regularization methods
- Geophysical inverse problems
- Big data and machine learning
- Applications in frontiers of science and engineering

Through this workshop we hope that we can attract some young students and scholars to step in this field and work on those important practical problems. This workshop will play an important role in stimulating inversion application researches and modern optimization researches, encouraging cross-disciplinary collaborations, and promoting the application of regularization and optimization techniques to industries and other science and engineering fields.

Invited plenary workshop lecturers include (tentative lists, alphabetical order of surnames):

- L. J. Gelius, Professor, University of Oslo, Norway
- Guanghui Hu, Professor, Nankai University, China
- Junxiong Jia, Professor, Xi'an Jiaotong University, China
- Qinian Jin, Professor, Australian National University, Australia
- S. I. Kabanikhin, Professor, Russian Academy of Sciences, Russia
- G. M. Kuramshina, Professor, Lomonosov Moscow State University, Russia
- Peijun Li, Professor, Chinese Academy of Sciences, China
- Yang Li, Harbin Institute of Technology, China
- D. Lukyanenko, Professor, Lomonosov Moscow State University, Russia
- G. Nakamura, Professor, Hokkaido University, Japan
- Sergei V. Pereverzyev, Johann-Radon-Institute, Austria
- Gunther Uhlmann, Professor, University of Washington, USA
- Dinhua Xu, Professor, Shanghai University of Finance and Economics, China
- Yuesheng Xu, Professor, Old Dominion University, USA
- A. G. Yagola, Professor, Lomonosov Moscow State University, Russia
- Ye Zhang, Shenzhen MSU-BIT University, Shenzhen, China
- Jun Zou, The Chinese University of Hong Kong

We also invite contributed presentations. Those who want to contribute 20 minutes talks please send the Talk Title and Abstract (word preferred, Template "Abstract Template_CIPA2025.doc") by E-mail to
Prof. Yong Chen(yongchen@hit.edu.cn).
Deadline of submission：June10th, 2025.

Workshop Schedule (tentatively):

Dates	Contents
July 17, 8:30 (AM) – 6:00 (PM)	Registration

July 17, 6:30 (PM)	Welcome Reception Dinner
July 18-20	Lectures
July 20	Lectures; panel discussion
July 21	Departure

Prospective participants (except invited lecturers) should send their pre-registration (fill in the "Registration-CIPA2025-English.doc") to the address below by post or E-mail to Yong Chen(yongchen@hit.edu.cn) before May 31th, 2025. Due to limited resources and space, those who want to attend the conference, we suggest you register as soon as possible.

Registration fees: The registration fees for the workshop are 150 US dollars (RMB: 1000Yuan) and are collected during your registration. Registration fees for students are 100 US dollars (RMB: 800Yuan) and are collected during your registration.

Accommodation: The attendees must cover your accommodation by yourself. We are very pleased to help you for the hotel reservation. Due to various activities in July, it is the sooner to book hotels the better. A standard single/double room with breakfast costs 480 RMB per day. There are also luxury rooms available at different prices. Please contact the secretary for details.

Conference Location: Harbin New Paris Hotel(No. 177 Zhongshan Road, Nangang District, Harbin, Heilongjiang Province, China. This hotel is situated in the central area of Harbin, making it convenient for travelers to access various attractions and business districts in the city.)

Tour Information: There are many world famous sceneries in Harbin, including Central Street (Zhongyang Pedestrian Street), Saint Sophia Cathedral, Sun Island Scenic Area, Harbin Polarland, Volga Manor, Harbin Grand Theater, Harbin Institute of Technology Aerospace Museum and many others. We hope you enjoy the stay in Harbin, a beautiful city.

Visa: If you are not a Chinese passport holder, you maybe need a visa to come to China (Please check China new polices for unilateral visa-free countries). Please contact Prof. Yanfei Wang (yfwang@mail.iggcas.ac.cn) to get an official invitation letter for you to apply the Chinese visa if it is needed.

When reach Harbin city, how to get to the Harbin New Paris Hotel

(No. 177 Zhongshan Road, Nangang District, Harbin):

- **By train:**

    Harbin West Railway Station –Harbin New Paris Hotel:

Option 1: Taxi/Ride-hailing Service: (30-35y RMB, depending on the traffic condition)

Option 2: Subway (6y RMB): Take Subway Line 3 (from Harbin West Railway Station to the Second Hospital of Harbin Medical University Station), transfer to Subway Line 1 (from the Second Hospital of Harbin Medical University Station to Museum Station), then transfer to Subway Line 2 (from Museum Station to Provincial Hospital Station), exit at Exit 2. After exiting, walk for approximately 800 meters.

Option 3: Bus (2y RMB): Bus Route 120: Harbin West Railway Station East Plaza Stop to Provincial Government Stop. After disembarking, walk for 300 meters.

Harbin Railway Station - Harbin New Paris Hotel:

Option 1:Taxi/Ride-hailing Service (15-20y RMB, depending on the traffic condition)

Option 2: Bus (2y RMB): Bus Route 21/14: Harbin Railway Station North Plaza Bus Stop to Provincial Government Stop. After disembarking, walk for 300 meters.

- **By airplane**: Taiping Airport - Harbin New Paris Hotel

Option 1：Taxi/Ride-hailing Service (120-150y RMB, depending on the traffic condition)

Option 2：Airport Shuttle + Taxi: Take Airport Shuttle Line 1 directly to the Civil Aviation Building (final stop, the fare is 20y RMB), then transfer to a Taxi (9y RMB).

- **Note:** Pick up at the airport: the Secretaries in HIT will arrange pickup as appropriate depending on the arrival time of the concentration.

For further information, please contact the workshop organizer (Yanfei Wang, yfwang@mail.iggcas.ac.cn) or the workshop co-organizer:

Prof. Yong Chen (yongchen@hit.edu.cn)

Harbin Institute of Technology

Harbin 150006, China

Please fill in the registration form by "email" or "online", if it is by email:

"Registration-CIPA2025-English.doc"
and send it to:
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