The 8th Pacific Causal Inference Conference (PCIC 2026)

July 18-19, 2026 Tianjin, China

Conference Announcement

In recent years, causal inference has experienced sustained and steady development. Its methodological framework has been continuously refined, and its range of applications has expanded significantly. With the rapid advancement of artificial intelligence (AI) technologies, causal inference is becoming deeply integrated with AI, playing an increasingly important role in enhancing the reliability, robustness, and interpretability of AI systems. As a key data analysis tool, causal inference provides new perspectives for understanding and analyzing complex intelligent systems such as large language models, and has been widely applied across science, technology, and industry. Although challenges remain—particularly in areas such as multi-source heterogeneous data integration and the robustness of causal conclusions—causal inference has gradually evolved from a predominantly theoretical academic pursuit into a vital methodology supporting scientific research and practical decision-making, attracting growing attention from both academia and industry.

The Pacific Causal Inference Conference (PCIC), established in 2019 by Dr. Xiao-Hua Zhou, Chair Professor at Peking University, Chair of the Department of Biostatistics at the School of Public Health, and Director of the Biostatistics and Informatics Research Center at the Beijing International Center for Mathematical Research, has become an annual academic event in the causal science community. Dedicated to exploring the latest developments in causal inference across various domains, PCIC has successfully hosted seven editions in Beijing and Shanghai from 2019 to 2025.

To foster continued academic exchange, explore theoretical advancements, and promote the practical application of causal inference across disciplines, the 8th Pacific Causal Inference Conference (PCIC 2026) will be held in Tianjin from July 18 to 19, 2026. As an international academic platform, PCIC 2026 will bring together leading experts and scholars in the causal inference community to facilitate cross-disciplinary collaboration, advance theoretical research, and drive innovative applications across industries.

We warmly invite experts and scholars from around the world to join PCIC 2026 and contribute to the advancement of the field of causal inference!

1. Conference Information

Conference Name: The 8th Pacific Causal Inference Conference, PCIC 2026
Conference Dates: July 18-19, 2026
Conference Venue： Nankai University, Tianjin, China

2. Organizing Institutions

Organizers: School of Statistics and Data Science, Nankai University; Department of Biostatistics,

School of Public Health, Peking University

Co-organizers: Chinese Association for Applied Statistics-Biostatistics; CMS-Mathematics in Medicine; Beijing International Center for Mathematical Research

3. Participants

PCIC 2026 is open to global researchers, scholars, data scientists, engineers, policy analysts, and practitioners engaged in causal inference research and its applications. We invite experts and scholars from various fields to actively participate and engage in discussions with international peers on cutting-edge techniques and applications in causal inference.

4. Participation Type

- Listener Participation: register as a listener and attend the two-day conference (July 18–19).
- Oral Presentation Participation

Students: After registration, submit a full paper along with valid student certification. Outstanding papers will be considered for awards.

Non-students: After registration, submit an abstract.

- Poster Presentation Participation: Primarily for students. After paid registration, participants submit an abstract.

Note: The submission deadline for full papers and abstracts for oral presentations and poster presentations is April 30, 2026.

- Short Course Participation: Participants register for a short course on causal inference, held on the afternoon of July 17, 2026.

Note: Conference participation (audience/oral presentation/poster) and short course participation are two independent activities. Participants may register for both and attend concurrently.

5. Conference Schedule

<table>
<tr><td colspan="2">July 17, 2026</td></tr>
<tr><td>Afternoon</td><td>Short Course</td></tr>
<tr><td colspan="2">July 18, 2026</td></tr>
<tr><td rowspan="4">Morning</td><td>Opening Speech</td></tr>
<tr><td>Invited Speech</td></tr>
<tr><td>Coffee Break</td></tr>
<tr><td>Invited Speech</td></tr>
<tr><td colspan="2">Lunch</td></tr>
<tr><td rowspan="3">Afternoon</td><td>Invited Speech</td></tr>
<tr><td>Coffee Break</td></tr>
<tr><td>Invited Speech</td></tr>
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<table>
<tr><td colspan="4">July 18, 2026 (evening)</td></tr>
<tr><td colspan="2">Zoom</td><td colspan="2">Invited Speech</td></tr>
<tr><td colspan="4">July 19, 2026</td></tr>
<tr><td colspan="2">Meeting Room 1</td><td colspan="2">Meeting Room 2</td></tr>
<tr><td rowspan="3">Morning</td><td>Invited Speech</td><td rowspan="3">Morning</td><td>Oral Presentation</td></tr>
<tr><td>Coffee Break</td><td>Coffee Break</td></tr>
<tr><td>Invited Speech</td><td>Oral Presentation</td></tr>
<tr><td colspan="4">Lunch</td></tr>
<tr><td rowspan="5">Afternoon</td><td>Invited Speech</td><td rowspan="5">Afternoon</td><td>Oral Presentation</td></tr>
<tr><td>Coffee Break</td><td>Coffee Break</td></tr>
<tr><td rowspan="2">Invited Speech</td><td>Oral Presentation</td></tr>
<tr><td>Best Student Paper Award Ceremony</td></tr>
<tr><td>Closing Ceremony</td><td>Closing Ceremony</td></tr>
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- Short Course Time: July 17, 13:00–17:00
- Conference Registration & Check-in (Listener / Oral Presentation / Poster Presentation): July 17, 13:00–17:00
- Conference Dates: July 18–19, 2026
- Venue: Nankai University, China
- Conference Website: https://spco.cc/pcic2026
- The above schedule is provisional. Detailed arrangements will be supplemented and updated in real time.

6. Short Course: Causal Inference: From Statistical Foundations to AI Era

6.1 Introduction

This short course begins with the statistical foundations of causal inference and systematically explores the development of causal science, from traditional statistical methods to the cutting edge of intelligent science. Causal inference is built on a solid theoretical basis: under the Neyman–Rubin potential outcomes framework, the main topics include the definition, identification, estimation, and inference of causal effects. Causal diagrams serve as essential tools for describing the mechanisms of interaction among multiple variables, helping us gain a deep understanding of how causal relationships operate, especially how causal effects are transmitted under interventions.

Causal inference has been widely applied in biostatistics and many other fields, with the challenge of confounding being a central focus. For observational studies, this course will introduce suitable causal inference methods based on different data types and

data-generating mechanisms. For instance: when complete randomization is infeasible, how to effectively estimate causal effects using regression, weighting, and doubly robust methods, and how to choose optimal estimators; when outcomes are affected by post-treatment events, how to use mediation analysis to decompose causal effects along different pathways, and how to handle time-to-event mediators and outcomes; when the outcome cannot be directly defined, how to use principal stratification to identify target populations and causal effects; and when unmeasured confounding cannot be controlled, how to identify causal effects using instrumental variables and negative control variables. Additionally, the course covers attribution analysis, which aims to infer possible causes based on known results.

In the era of artificial intelligence, causal inference increasingly interacts with machine learning. This course will also examine applications of modern methods such as deep learning in causal effect estimation, including strategies for dealing with unmeasured confounding in complex scenarios and enhancing the generalizability of causal inference. Finally, through practical case studies, the course will illustrate the diverse applications of causal inference in cutting-edge fields such as computer vision, natural language processing, internet recommendation systems, and large language models, equipping participants with a comprehensive understanding of both the theoretical foundations and innovative practices in causal science.

6.2 Short Course Instructors

Xiao-Hua Zhou, PKU Endowed Chair Professor, Peking University

Yuhao Deng, Postdoctoral Fellow, Fred Hutch Cancer Center

Chunyuan Zheng, Ph.D. Student, Peking University

6.3 Outline of the course

6.3.1. Randomized Experiments

– Completely Randomized Trials, Stratified Randomization, Rerandomization

6.3.2. Observational Studies: Ignorability

– Regression Estimation, Weighting Estimation, Subclassification Estimation, Balanced Estimation, Doubly Robust Estimation, Censored Data

6.3.3. Causal Graphs

– Directed Acyclic Graphs (DAGs), Bayesian Networks, Adjustment Criteria, Single-World Intervention Graphs (SWIGs)

6.3.4. Mediation Analysis

– Natural Effects, Separable Effects, Interventional Effects, Competing and Semi-Competing Risks

6.3.5. Principal Stratification

– Noncompliance, Truncation by Death, Broken Randomized Trials, Cure Models

6.3.6. Applications of Causal Inference in Medical Research: Intercurrent Events

– ICH E9 (R1) Strategies for Handling Intercurrent Events, General Outcomes and Survival Outcomes

6.3.7. Observational Studies: Non-Ignorability

– Instrumental Variables, Negative Control Variables, Difference-in-Differences

6.3.8. Attribution

– Necessity, Sufficiency, Single Cause and Single Effect, Multiple Causes and Multiple Effects

6.3.9. Deep Learning for Causal Effect Estimation in Complex Scenarios

– Representation Learning, Generative Models

6.3.10. Applications of Causal Methods in Real-World Scenarios

– Computer Vision, Natural Language Processing (NLP), Internet Recommendation Systems, Large Language Models (LLMs)

7. Conference Registration

All participants—including listener, oral presenters, poster presenters, and short course attendees—are required to register via the official conference registration website.

Registration Fees

Category	Fee	Notes
Standard Registration	USD 170	Includes conference bag, program booklet, certificate of attendance, and buffet lunches for both conference days
Student Registration	USD 115	Valid student identification required; includes all items listed above
Short Course Registration	USD 70	Includes course materials for the afternoon session on July 17

Note: Regardless of the participation type, registration fees are charged based on participant status (student / non-student).

Registration Method:

- Conference Registration (Listener / Oral Presentation / Poster Presentation):

Step 1: Payment and Registration

Please scan the QR code to complete the conference payment and registration.
Kindly save a screenshot of the payment confirmation, as it will be required for later verification.

Step 2: System Login and Submission
Please visit the following registration link:
https://www.meta-conference.cc/index/index/registerm/id/89.html
Create a user account and log in to the system. Fill in the required personal information.
When selecting the payment method, please choose Bank Transfer and upload the payment screenshot saved in Step 1.
After submission, the order status will be marked as Pending.
Once the organizing committee confirms receipt of the payment, the status will be updated to Complete.
During this period, you may log in to the registration system and, under My Registration, upload the required abstract or full paper according to your participation type (oral presentation or poster presentation).
Note:
If you are unable to complete the payment via QR code, please use the bank account information provided under Bank Transfer, complete the transfer manually, and upload the payment proof to the system.

- Short Course Registration: https://www.meta-conference.cc/index/index/registerm/id/90.html

(1). Create a user account on the **Meta-conference** website if you do not already have one
(2). Proceed to register for the short course
(3). Complete all required fields (*) with accurate information, including:
· Full name of attendee
· Phone number
· Email address
· Affiliation
· Country
· Paper ID: Please enter "N/A"
(4). **Attendee Type**: Only in-person participation, **no selection is needed**
(5). **Dining**: Since no meals will be provided for the short course, **no selection is needed**
(6). **Attendee's Name**: Fill in the attendee's name in English format.

(7). After completing all information, click "**Submit Payment**" to proceed to the payment page.

8. Contact Information

For more detailed conference information, please visit the conference website: https://www.spco.cc/pcic2026

If you have any questions, please feel free to contact the conference organizers:

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The 8th Pacific Causal Inference Conference
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