

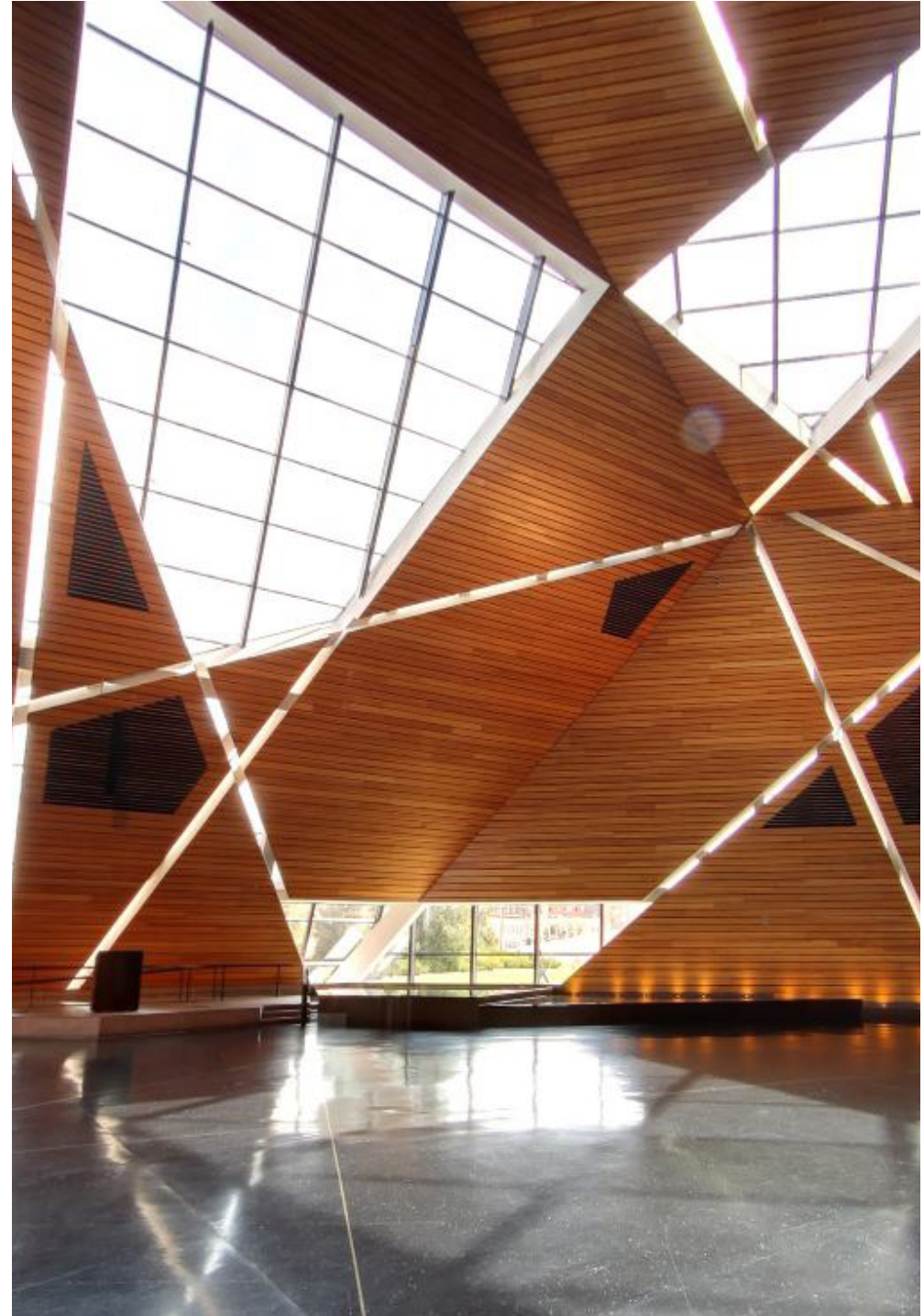


IMPS 2025



University of Minnesota • Minneapolis, MN, USA
July 15-18, 2025 • Short Courses July 14

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Dear Attendees and Guests,

We are delighted to welcome you to IMPS 2025, the 90th Annual Meeting of the Psychometric Society, taking place in the beautiful City of Lakes, Minneapolis, Minnesota, USA. This year's conference is hosted by the Department of Educational Psychology in the College of Education and Human Development (CEHD) at the University of Minnesota–Twin Cities, in collaboration with the Psychometric Society. The meeting will be held at the Graduate Minneapolis by Hilton and the McNamara Alumni Center, both located on the University's main campus and easily accessible via the local light rail system.

The meeting will begin on Monday, July 14, with four parallel short courses. In the evening of July 14th, from 6:30 to 8:30 p.m., registered graduate students are invited to attend a Student Dinner Mixer at the Topgolf Swing Suite, located in the Graduate Minneapolis by Hilton. This event offers complimentary dinner and drinks, as well as the opportunity to connect with fellow students from around the world in a relaxed setting. On Tuesday, July 15, the Welcome Reception and Poster Session will take place jointly from 5:15 to 7:15 p.m. in Memorial Hall at the McNamara Alumni Center. During the session, presenters will be available at their posters to discuss their work and exchange ideas with conference attendees. Finally, this year, we are excited to host our Closing Conference Banquet Reception at the Nicollet Island Pavilion on Friday, July 18, from 6:00 to 9:00 p.m. The venue offers breathtaking views of the Minneapolis skyline and the historic Merriam Street Bridge and Boom Island–Nicollet Island Bridge.

This year promises to be a vibrant meeting with over 300 presentations, close to 100 posters, and attendees from over 30 countries. In addition, the conference features two distinguished keynote speakers, six invited speakers, as well as Dissertation Award, Early Career Award, and Lifetime Achievement Award presentations. Topics covered range from the philosophy of psychometrics to artificial intelligence and from high dimensional statistics to formal models for psychological processes, showing the breadth and versatility of the discipline. We look forward to a bristling IMPS with inspiring discussion and rich intellectual exchange. We hope that you will enjoy a productive meeting, and thank you for joining us.



Denny Borsboom, University of Amsterdam
President of the Psychometric Society

Local Organizing Committee

Dr. Nidhi Kohli, Royal and Virginia Anderson Professor of
Quantitative Methods

Dr. Wenchao Ma, John P. Yackel Professor in Educational
Assessment and Measurement

Dr. Nana Kim, Assistant Professor

Dr. Haoran Li, Assistant Professor



Short Course #1:

Bayesian Psychometric Modeling and Blavaan

Monday, July 14, 2025

9:00 a.m. - 5:00 p.m. (*Full Day*)

Location: GH: Think 4

Speaker:

Ed Merkle



Short Course #3:

Modeling Item-Level Heterogeneous Treatment Effects: A Tutorial in R

Monday, July 14, 2025

9:00 a.m. - 12:30 p.m. (*Half Day*)

Location: GH: Think 3

Speaker:

Joshua Gilbert



Short Course #2:

Cognitive Diagnosis Models: Theory and Applications in R

Monday, July 14, 2025

9:00 a.m. - 5:00 p.m. (*Full Day*)

Location: GH: Think 5

Speakers:

Wenchao Ma, Jimmy de la Torre, and Sangbeak Ye



Short Course #4:

Development of Interactive Shiny Modules for Psychometric Research Dissemination

Monday, July 14, 2025

2:00 p.m. - 5:30 p.m. (*Half Day*)

Location: GH: Think 3

Speakers:

Patrícia Martinková & Jan Netík





Prof. James Stephen Marron
University of North Carolina

Tuesday, July 15
9:15 a.m. - 10:15 a.m.
Location: GH: Meridian 1-2

Keynote Address:

Data Integration Via Analysis of Subspaces

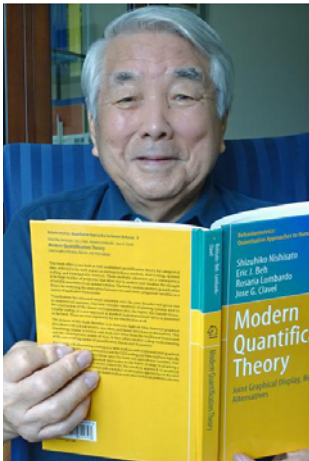


Prof. Mark Himmelstein
Georgia Institute of Technology

Tuesday, July 15
4:15 p.m. - 5:15 p.m.
Location: GH: Meridian 1-2

2025 Dissertation Prize:

Measuring Persuasion Without Measuring a Prior Belief: A New Application of Planned Missing Data Techniques



Prof. Shizuhiko Nishisato
University of Toronto

Wednesday, July 16
10:45 a.m. - 11:45 a.m.
Location: GH: Meridian 1-2

Career Award for Lifetime Achievement:

Reminiscing Controversies Over Joint Graphical Display in Quantification



Prof. Carolyn J. Anderson
University of Illinois Urbana-Champaign

Thursday, July 17
10:45 a.m. - 11:45 a.m.
Location: GH: Meridian 1-2

Keynote Address:

Association and Measurement Models for Categorical Data



Prof. Maria Bolsinova
Tilburg University

Thursday, July 17
4:45 p.m. - 5:45 p.m.
Location: GH: Meridian 1-2

Early Career Award:

Psychometrics for Adaptive Learning: Challenges and Solutions



Prof. Denny Borsboom
University of Amsterdam

Friday, July 18
2:30 p.m. - 3:30 p.m.
Location: GH: Meridian 1-2

2025 Presidential Address:

Psychometric Models and Psychological Theories



Dr. Yueqin Hu & Dr. Hongyun Liu
Beijing Normal University

Tuesday, July 15
1:30 p.m. - 2:15 p.m.
Location: GH: Meridian 1-2

Exploring Intensive Longitudinal Data Analysis: Challenges and Advances in Measurement and Modeling



Dr. Nidhi Kohli
University of Minnesota

Tuesday, July 15
1:30 p.m. - 2:15 p.m.
Location: GH: Meridian 3-4

Bayesian Longitudinal Mediation Models



Dr. Matthew Madison
University of Georgia

Wednesday, July 16
4:45 p.m. - 5:30 p.m.
Location: GH: Meridian 1-2

Diagnostic Classification Models: Advancement Through Simplicity



Dr. Jessica Flake
University of British Columbia

Wednesday, July 16
4:45 p.m. - 5:30 p.m.
Location: GH: Meridian 3-4

Methodological Research for the Open Science Era



Dr. Aleksandar Tomašević
University of Novi Sad, Serbia

Friday, July 18
10:45 a.m. - 11:30 a.m.
Location: GH: Meridian 1-2

Capturing Emotional Dynamics: Integrating Transformer Models with Dynamic Exploratory Graph Analysis



Dr. Keith A. Markus
The City University of New York

Friday, July 18
10:45 a.m. - 11:30 a.m.
Location: GH: Meridian 3-4

Four Takes on Construct Validity: From Logical Empiricism to Varieties of Scientific Realism

Graduate Student Dinner Mixer Monday July 14 | 6:30 p.m. - 8:30 p.m.

Location: **Topgolf Swing Suite**
(615 Washington Ave SE, Minneapolis, MN 55414)

We are delighted to host our annual exclusive graduate student dinner mixer at the Topgolf Swing Suite.

As a registered student, you are welcome to join this event for a complimentary dinner and have the opportunity to meet and connect with other students from around the world.

The graduate student dinner mixer will take place on Monday, July 14, from 6:30 p.m. to 8:30 p.m.



IMPS 2025 Welcome Reception & Poster Session

Tuesday, July 15 | 5:15 p.m. - 7:15 p.m.

Location: **The Memorial Hall of the McNamara Center** (200 SE Oak St, Minneapolis, MN 55455)

We are thrilled to invite you to this year's welcome reception on Tuesday July 15, 2025 from 5:15 p.m. to 7:15 p.m. at The Memorial Hall of McNamara Center.

Join us for an evening of fun and networking. Don't miss the chance to meet UMN Goldy Gopher from 5:15 p.m. to 6:15 p.m. Light appetizers will be served and a cash bar will be available to attendees and their guests.

This year, the Welcome Reception will be held in conjunction with the Poster Session Reception, offering meeting attendees the opportunity to explore a diverse collection of psychometric research. Presenters will be standing by their posters from 5:45 p.m. – 7:15 p.m. in this relaxed and fun setting.

A bonus this year, the McNamara Alumni Center also has opened up their beautiful facility for attendees to not only enjoy the striking features of the well designed facility that reflects Minnesota's natural assets in the Memorial Hall event space, attendees can also visit the Heritage Gallery Museum during the Welcome Reception.

To learn more about the facility [click here](#) and about the Museum [click here](#).

[Click here](#) to view the IMPS 2025 list of poster titles and presenters.

Additional information for poster presenters can be found [here](#).

Group Photo

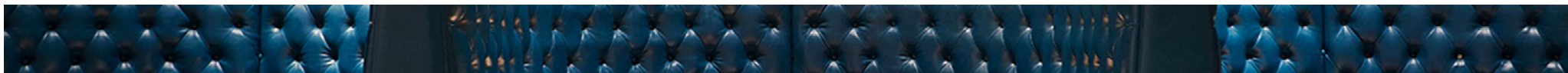
Thursday, July 17 | 4:15 p.m. - 4:30 p.m.

Location: **The Memorial Hall of the McNamara Center** (200 SE Oak St, Minneapolis, MN 55455)

The **Group Photo** is a traditional moment of capturing the great time of IMPS conference for future memories. All attendees are welcome to join!

The group photo will be made available for download on the Society website after the conference. Mark your calendar, and more details will be shared with attendees onsite.

We look forward to capturing this memorable moment with all of you in the Twin Cities!



IMPS 2025 Closing Banquet Reception **Friday, July 18 | 6:00 p.m. - 9:00 p.m.**

Location: **Nicollet Island Pavilion** (40 Power Street, Minneapolis, MN 55401)

We are excited to host the IMPS Closing Conference Banquet Reception at the award-winning Nicollet Island Pavilion on Friday, July 18, from 6:00 p.m. to 9:00 p.m., following the final day of conference sessions.

Situated along the banks of the Mississippi River, Nicollet Island Pavilion offers breathtaking views of the Minneapolis skyline and the historic Merriam Street Bridge and Boom Island–Nicollet Island Bridge. The Mississippi River holds deep historical

significance for the state of Minnesota and the United States, playing a crucial role in trade, transportation, and cultural exchange. For approximately 12,000 years, American Indian tribes have inhabited the upper Mississippi Valley, shaping its rich heritage. Over time, the river has been instrumental in the growth of many U.S. cities along its course, including the Twin Cities of Minneapolis and St. Paul.

Conveniently located near campus, this historic and elegant venue provides the perfect backdrop for an evening of collegial connection and reflection as we conclude the 90th meeting of the Psychometric Society. You are welcome to bring a guest or guests

to the banquet for an additional fee. Please be sure to arrange this ahead of time to ensure tickets are reserved by selecting this option on the online registration form or the downloadable PDF registration form when registration opens.

We look forward to closing out our conference with this special event and creating unforgettable memories together in Minneapolis this summer.

The venue is easily accessible by rideshare services (e.g., Uber, Lyft) and public transportation, including the Metro Transit buses and light rail. **[Kindly find the relevant transportation information here.](#)**



Conference Venue

This year, IMPS will be held in the wonderful city of Minneapolis, MN. The conference is hosted by the University of Minnesota Twin Cities and the Psychometric Society.

For an interactive map, [click here](#).

Participants can find the IMPS headquarter hotel (Graduate Hotel, labeled by star) and McNamara Alumni Center (place for events and sessions, labeled by a flag). The interactive map also shows some restaurants close to the Graduate Hotel and a few other hotels nearby.

Attendees can find also an interactive map for the University of Minnesota-Twin Cities campus [here](#).

The opening, keynotes, and awards talks will take place in the Meridian Ballroom at the Graduate Hotel. The Presidential Address, members meeting and closing talks will take place at the McNamara Alumni Center in the Memorial Hall. The parallel sessions will take place in both the Graduate Hotel and McNamara Alumni Center which are connected buildings adjacent to each other that attendees can access via a tunnel or attendees can walk outside along the Scholars Walk way about 5-minutes long. From the 2nd floor of the hotel, look for signs to take the tunnel to McNamara. Once you're through the tunnel, you arrive in McNamara's fireplace lounge at the Information Desk where our signage will guide you to the IMPS session and events.

[Click here](#) for the walking route from the Graduate Hotel to McNamara. Refer to the map on pages 12 & 13 for a particular session room, the registration area, and/or the refreshment break area (Meridian Foyer). Check out all events [here](#).

Special Accommodations

If you require special accommodations and/or have special dietary needs during the meeting, please visit the IMPS Registration Desk located at the Graduate Hotel on the 2nd floor - Top of the Escalators.

Photography Disclosure

Portions of this event may be videotaped and photographed by the meeting and/or the media. By attending this meeting, you accept the possibility that you might be videotaped or photographed.

IMPS Registration and Informational Desk

The IMPS Registration and Informational Desk is located at the Graduate Hotel on the 2nd floor - Top of the Escalators during the Annual Meeting, July 14 to July 18. A representative from The Rees Group (management company supporting the Society) is available to offer attendee assistance during the conference to answer questions, renew memberships, or assist those interested in joining the Psychometric Society. You can also join online [here](#).

Registration Desk Hours of Operation:

Monday, July 14 | 8:00 a.m. - 11:00 a.m.

and 1:30 p.m. - 5:30 p.m.

(Short Course Workshops Day; however, the desk is available to all meeting attendees.)

Tuesday, July 15 | 7:30 a.m. - 4:30 p.m.

Wednesday, July 16 | 7:30 a.m. - 5:00 p.m.

Thursday, July 17 | 7:30 a.m. - 4:30 p.m.

Friday, July 18 | 7:30 a.m. - 3:30 p.m.

Name Badge Policy

Meeting name badges are required for entrance to all conference sessions and events. Please wear your badge at all times. Thank you!

Thumb Drives containing the IMPS 2025 Abstract PDF and Meeting Materials

The Society has placed the IMPS 2025 abstract PDF and meeting materials on thumb drives for "temporary use" on site. These will be available at the IMPS Registration Desk to download to your personal computer if needed.

The Society conference page and the conference app will also host the IMPS 2025 materials.

Conference Attire

Business casual attire is suggested for the meeting but is not mandatory. Please note that the meeting takes place during the summer.

In Minneapolis, the average temperature in July ranges from 63°F (17°C) to 83°F (28°C). July is generally considered one of the most inviting months for outdoor activities and to especially enjoy the city of Minneapolis and nearby areas in MN. We recommend dressing appropriately to the weather, but in layers as all venues are air conditioned.

Meeting Breakfast, Refreshment Breaks, and Lunch Breaks

The IMPS meeting will provide a daily hosted light continental breakfast buffet (8:00 a.m. - 9:00 a.m.) and morning and afternoon beverage refreshments during the session breaks (refer to the SAAG for daily times). Lunch will not be provided by the Society; rather, attendees will be on their own for lunch.

To view nearby restaurant information, [click here](#). For a interactive map, [click here](#).

For an interactive campus map, [click here](#).

IMPS 2025 Mobile App

The Psychometric Society has a mobile app for IMPS 2025. Please download the “**EX ORDO**” app using Apple App Store (iOS) or Google Play Store (Android). Once you open the app, click the Ex Ordo icon to create an account or log in. Then search under the Find Guides tab. Click on the “Have a Passphrase?” button and enter “**imps2025.**” Tap on the guide and then join to access the IMPS 2025 Mobile App.

Complimentary internet will be available at the Conference Venues, however, we suggest you download the app before you travel to the meeting site. Please also be aware of any additional data charges when using the mobile app. Attendees will be able to access the program, abstracts, and more on this year’s app.

Transportation

Transportation from MSP Airport to the Graduate Hotel and UMN Campus can be done via public transportation, rideshare or taxi. Conveniently located off Interstates 35W and 94, the MAC and Graduate Hotel are easy to get to and is less than 2 miles from downtown Minneapolis and 14 miles from the airport. The hotel is located on the green line of the light rail with service to Minneapolis’ entertainment districts and to MSP International Airport (requires 1 transfer).

For additional transportation information, [click here](#).

Psychometric Society Social Media

Don’t forget to post this week: use **#IMPS2025** on any of the society’s social media channels!

[Facebook](#)
[X](#)
[LinkedIn](#)

Wi-Fi Access

Graduate Hotel (GH):

There is a complimentary network in the Graduate Hotel for all attendees. Guests can simply connect to Graduate_meetings and follow the prompts to accept the terms and conditions to be connected to the internet.

McNamara (MAC):

The center has an open network. It’s UofM - Guest. Guests will connect to the network, and then open a web browser where a splash page will pop-up to accept the terms and conditions and then be connected to the internet.

The Program Committee is responsible for the scientific program of International Meeting of the Psychometric Society. Its duties include inviting speakers, short-course presenters, chairs, and organizers of invited sessions; reviewing submitted abstracts and proposals for symposia; designing the program; and providing advice and feedback on the program and abstract books. According to the bylaws, the president is the chair of the Program Committee, and the members are the immediate past president, president-elect, secretary, four regular members, and any number of adjunct members. Two members of the Program Committee are appointed by the president every year to serve for two years. In addition, the president may appoint, for a term of up to one year each, any number of adjunct members.

2025 Society President & Organizing Committee Chair:

Denny Borsboom, PhD

University of Amsterdam
The Netherlands

IMPS 2025 Local Committee

Nidhi Kohli, PhD

Local Host Committee Chair
Royal and Virginia Anderson Professor of Quantitative Methods
Department of Educational Psychology
University of Minnesota
Minneapolis, MN

Wenchao Ma, Ph.D.

John P. Yackel Professor in Educational Assessment and Measurement
Department of Educational Psychology
University of Minnesota
Minneapolis, MN

Nana Kim, PhD

Department of Educational Psychology
University of Minnesota
Minneapolis, MN

Haoran Li, PhD

Department of Educational Psychology
University of Minnesota
Minneapolis, MN

IMPS 2025 Program Committee:

- Nidhi Kohli (University of Minnesota)
- Sy-Miin Chow (Penn State University)
- Mark Wilson (UC Berkeley)
- Sylvia Bianconcini (University of Bologna)
- Minjeong Jeon (UCLA)
- Ed Merkle (University of Missouri)
- Laura Bringmann (University of Groningen)
- Peter Halpin (University of North Carolina at Chapel Hill)
- David Torres Irribarra (Pontificia Universidad Católica de Chile)
- Marie Wiberg (Umeå University)
- Gyeongcheol Cho (The Ohio State University)
- Hudson Golino (The University of Virginia)
- Katrijn van Deun (Tilburg University)
- Ji Hoon Ryoo (Yonsei University)
- Mijke Rhemtulla (UC Davis)

THANK YOU

A very extra special thank you to our local organizing committee members **Nidhi Kohli, Wenchao Ma, Nana Kim, and Haoran Li.**

Many thanks also go to all the local volunteers for all their hard work: Ziwei Zhang, Qian Zhao, Yue Zhao, Jichuan Wu, Scarlett Escudero Osorio, Yiming Chen, Varun Athilat, Sujit Maharjan, Cristaly Mercado, Kate Song, Shengyin (Sabrina) Sun, Ekom Eyoh, Emily Chan, Jesus Delgado, Xinyu Liu, Anne Foegen, Rochelle Hammer, and Raj Wahlquist. Thanks to Anika Korobkov for her assistance in preparing the program.

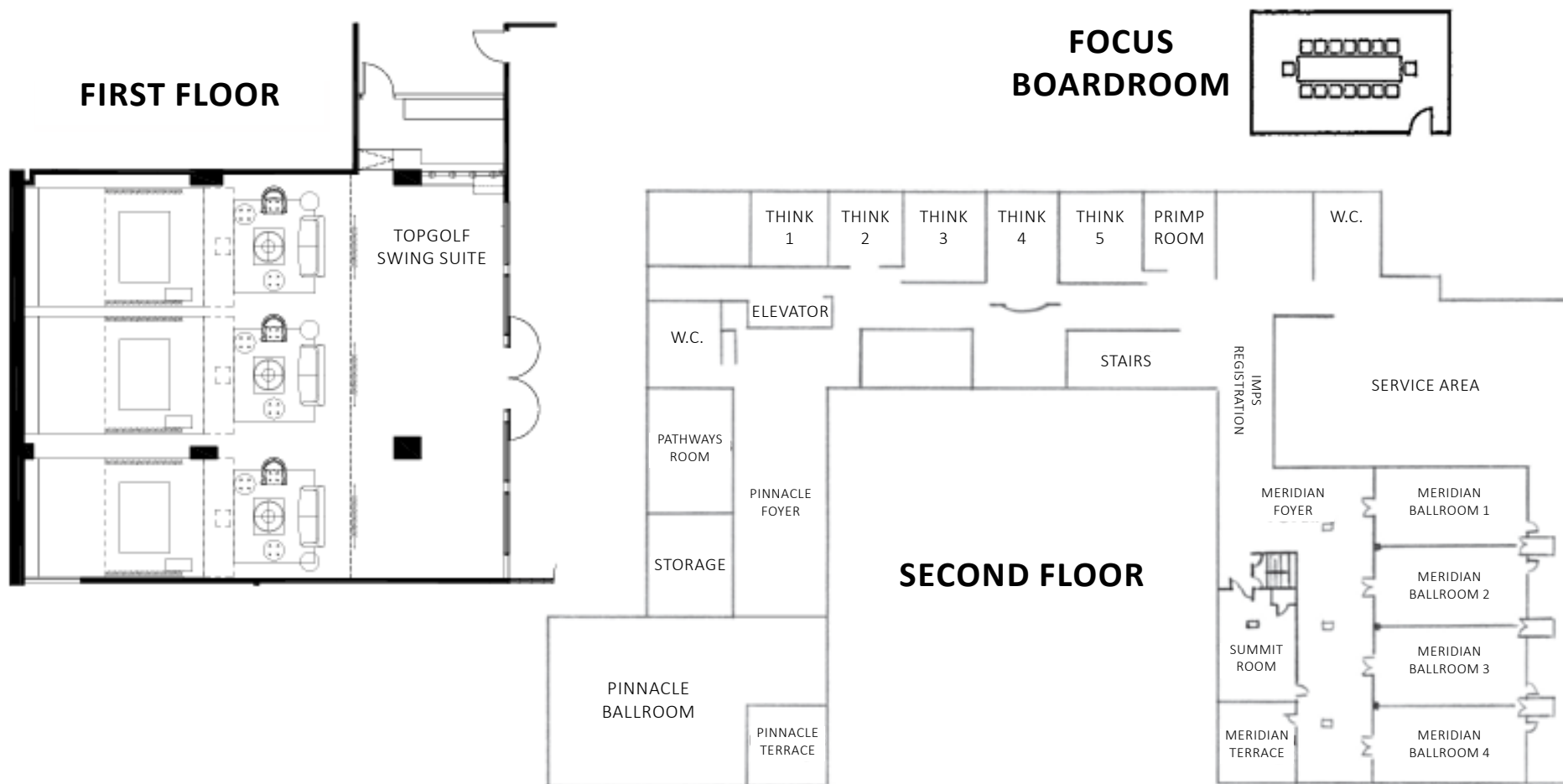
Thank you to the conference host recommending the IMPS 2025 site this year: Department of Educational Psychology at the University of Minnesota, Minnesota, USA.

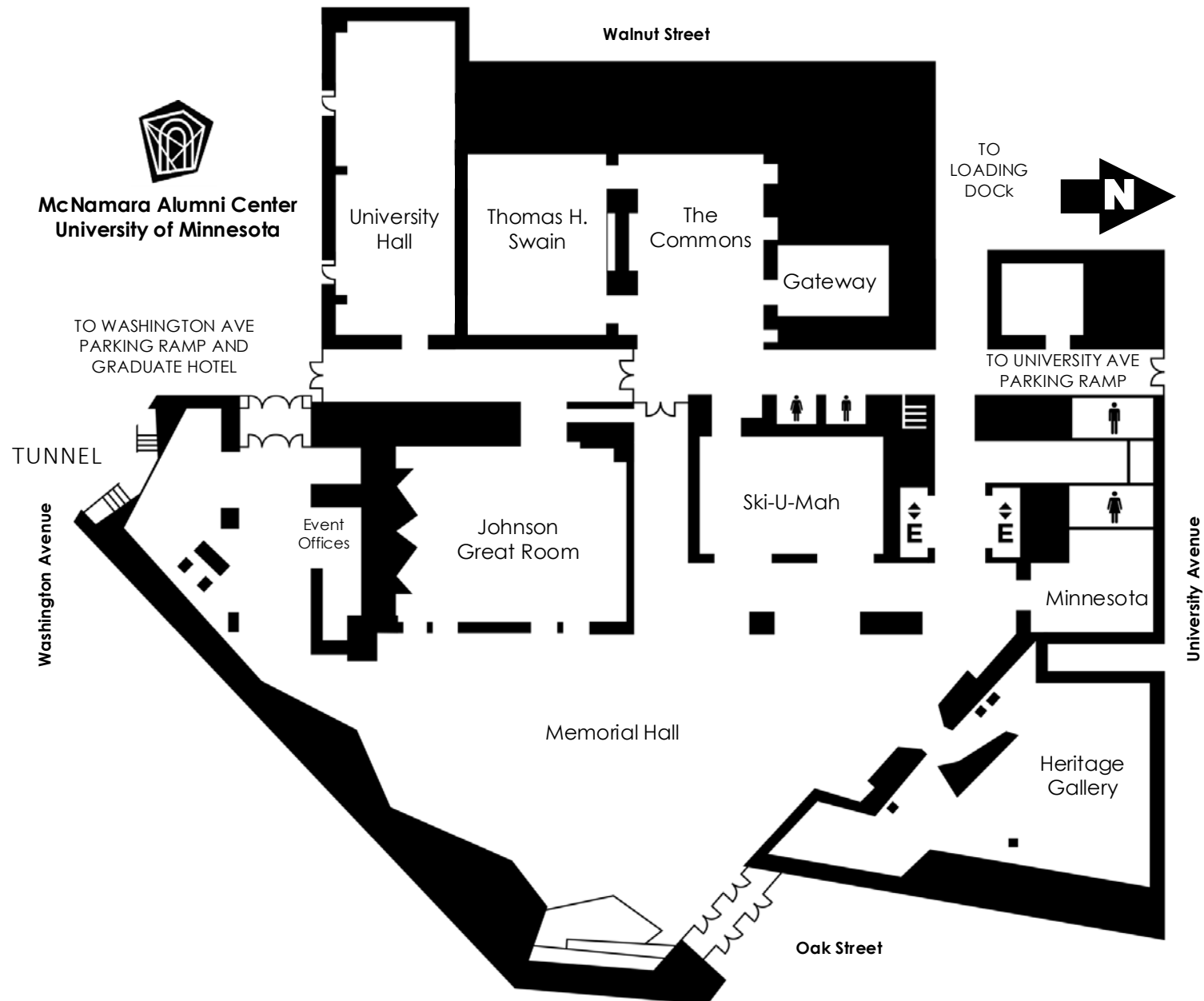
We thank you all for joining us this year at IMPS 2025, and we sincerely hope you have a wonderful visit in Minneapolis, MN!

Psychometric Society

For more information about the Psychometric Society or membership, contact the Psychometric Society Association Management Company:

4300 Duraform Lane, Suite A
Windsor, WI 53598
Telephone: 608-268-4712
Email: info@psychometricsociety.org





Graduate by Hilton Minneapolis

Top of the Escalators Foyer (Second Floor)
615 Washington Ave SE, Minneapolis, MN 55414

Monday, July 14

Registration Hours:
8:00 a.m. - 11:00 a.m.
and 1:30 p.m. - 5:30 p.m.

Cont. Breakfast Hours:
8:00 a.m. - 9:00 a.m.

Tuesday, July 15

Registration Hours:
7:30 a.m. - 4:30 p.m.

Cont. Breakfast Hours:
8:00 a.m. - 9:00 a.m.

Wednesday, July 16

Registration Hours:
7:30 a.m. - 5:00 p.m.

Cont. Breakfast Hours:
8:00 a.m. - 9:00 a.m.

Thursday, July 17

Registration Hours:
7:30 a.m. - 4:30 p.m.

Cont. Breakfast Hours:
8:00 a.m. - 9:00 a.m.

Friday, July 18

Registration Hours:
7:30 a.m. - 3:30 p.m.

Cont. Breakfast Hours:
8:00 a.m. - 9:00 a.m.

All Times Listed in
Central Time

Monday • July 14

GH: Think 4

9:00 a.m. - 5:00 p.m.
Short Course #1:
Bayesian Psychometric Modeling and Blavaan
Speakers: Prof. Ed Merkle

9:00 a.m. - 10:30 a.m. • Short Course
10:30 a.m. - 10:45 a.m. • Refreshment Break
10:50 a.m. - 12:00 p.m. • Short Course
12:00 p.m. - 1:30 p.m. • Lunch Break (On Your Own)
1:30 p.m. - 3:00 p.m. • Short Course
3:00 p.m. - 3:15 p.m. • Refreshment Break
3:15 p.m. - 4:45 p.m. • Short Course
4:45 p.m. - 5:00 p.m. • Q&A

GH: Think 3

9:30 a.m. - 12:30 p.m.
Short Course #3:
**Modeling Item-Level Heterogeneous
Treatment Effects: A Tutorial in R**
Speakers: Dr. Joshua Gilbert

9:30 a.m. - 11:00 a.m. • Short Course
11:00 a.m. - 11:15 a.m. • Refreshment Break
11:15 a.m. - 12:30 p.m. • Short Course

GH: Think 5

9:00 a.m. - 5:00 p.m.
Short Course #2:
Cognitive Diagnosis Models: Theory and Applications in R
Speakers: Dr. Wenchao Ma, Prof. Jimmy de la Torre,
and Dr. Sangbeak Ye

9:00 a.m. - 10:30 a.m. • Short Course
10:30 a.m. - 10:50 a.m. • Refreshment Break
10:50 a.m. - 12:10 p.m. • Short Course
12:10 p.m. - 1:10 p.m. • Lunch Break (On Your Own)
1:30 p.m. - 3:10 p.m. • Short Course
3:10 p.m. - 3:30 p.m. • Refreshment Break
3:30 p.m. - 4:50 p.m. • Short Course
4:50 p.m. - 5:00 p.m. • Wrap-up

GH: Think 3

2:00 p.m. - 5:30 p.m.
Short Course #4:
**Development of Interactive Shiny Modules for
Psychometric Research Dissemination**
Speakers: Dr. Patrícia Martinková & Dr. Jan Netík

2:00 p.m. - 3:30 p.m. • Short Course
3:30 p.m. - 4:00 p.m. • Refreshment Break
4:00 p.m. - 5:30 p.m. • Short Course

6:30 p.m. -
8:30 p.m.

Topgolf Swing Suite (In The Graduate Hotel) | Address: 615 Washington Ave SE, Minneapolis, MN 55414

Graduate Student Dinner Mixer

This event is exclusively for graduate students and will be hosted by the Psychometric Society.

9:00 a.m. -
9:15 a.m.

GH: Meridian 1-2

Welcome Remarks: Prof. Denny Borsboom, Prof. Nidhi Kohli,
Prof. Michael Rodriguez, and Prof. Anne Foegen

9:15 a.m. -
10:15 a.m.

GH: Meridian 1-2

Keynote Address: Prof. Steve Marron
Data Integration Via Analysis of Subspaces
Chair: Matthias von Davier

10:15 a.m. -
10:45 a.m.

GH: Meridian Ballroom Foyer

Refreshment Break

10:45 a.m. -
12:00 p.m.

GH: Meridian 1-2

**Session: Construct Validity, Past and Present:
From Meehl and Minnesota to Beyond**
Chair: Alan Love

Honoring the Minnesota legacy of Paul Meehl, this session features a panel discussion on construct validity with short opening remarks from participants (philosophers and psychometricians), followed by an open conversation with the audience.

Participants include Bennett McNulty, Jessica Flake, Susan Embretson, Noah van Dongen, Alan Love, and Denny Borsboom.

GH: Meridian 3-4

Session: Artificial Intelligence I
Chair: He Ren

**A critical evaluation of similarity indices for
psychometric research**
Mr. Josiah Hunsberger

**Enhancing item parameters prediction with
transfer learning**
Mr. He Ren

**Evaluating the capabilities of large language
models in evidence synthesis**
Ms. Yuchen Zhang

**Item evaluation using LLM-respondents: A
psychometric analysis with open-source data**
Ms. Yunting Liu

MAC: Johnson

Session: Multilevel Modeling
Chair: Siyuan Chen

**Careless responding in intensive longitudinal data:
Effects on multilevel models**
Ms. Alicia Gernand

**The use of a multilevel multiple-indicators random-
intercept cross-lagged panel model in college student
goal pursuit**
Dr. Hiroki Matsuo

**What if sample size is the confound in multilevel
models?**
Mr. Michael Truong

**Estimating reliability using unbiased variance
components in a nested design with group-specific
distributions**
Dr. Siyuan Marco Chen

**Multilevel model ICCs: Issues with reduced-model
computation and full-model-based solutions**
Ms. Yingchi Guo

MAC: Thomas Swain

Session: Methods for Aberrant Behaviors
Chair: Daniel Bolt

**Evaluating rapid guessing as noninformative about
respondent proficiency**
Prof. Daniel Bolt

**Integrating disengagement identification into
response style modeling: Response times matter**
Mr. Jieyuan Dong

**Detecting aberrant responses using a general
mixture model for cognitive diagnosis**
Mr. Joemari Olea

**A beta mixture model for careless respondent
detection in visual analogue scale data**
Ms. Lijin Zhang

GH: Think 4

Session: Clustering Analysis
Chair: Paul Wesley Scott

**Thresholding method for identifying anomalies in
wellbeing time series data**
Dr. Marie Turcicova

**Clustering experience sampled time series with
deterministic and stochastic trends**
Dr. Paul Wesley Scott

**Understanding psychological temporal patterns:
Clustering time-series data and its challenges**
Ms. Yuanyuan Ji

GH: Think 5

Session: Advances in Parameter Estimation
Chair: Matthias von Davier

**Higher-order extended variational approximation to
estimate latent variable models**
Prof. Björn Andersson

**Resolving computational challenges of SEMs with big
data using a divide-and-conquer approach to Bayesian
synthesis**
Prof. Katerina Marcoulides

**Likelihood ratio tests with marginal maximum likelihood
using laplace approximations and adaptive quadrature**
Ms. Lu Zhang

**An improved Satterthwaite (1941, 1946) effective df
Approximation**
Prof. Matthias von Davier

**Calibrated frequentist inference by stochastic
approximation**
Prof. Yang Liu

GH: Think 3

Session: Item Response Theory I
Chair: Nana Kim

**Unexplained item-person interactions due to
heterogeneous item discriminations across
individuals**
Dr. Nana Kim

**Impact of item locations on parameter recovery
with the GGUM**
Ms. Nicole Bonge

**Exposome burden scores to summarize
environmental chemical mixtures: Creating a
common scale for cross-study harmonization,
report-back and precision environmental health**
Dr. Shelley Liu

**Integrating multidimensional scaling into the
multidimensional generalized graded unfolding
model**
Ms. Zhaoyu Wang

**TUESDAY
CONTINUED**
12:00 p.m. -
1:30 p.m.

Lunch (On Your Own) | Recommended Restaurants

1:30 p.m. -
2:15 p.m.

GH: Meridian 1-2

Invited Speaker: Prof. Hongyun Liu & Prof. Yueqin Hu
Exploring Intensive Longitudinal Data Analysis: Challenges and Advances in Measurement and Modeling
Chair: Ying (Alison) Cheng

GH: Meridian 3-4

Invited Speaker: Prof. Nidhi Kohli
Bayesian Longitudinal Mediation Models
Chair: Sophia Rabe-Hesketh

GH: Meridian 1-2

Session: Bayesian Methods and Their Applications
Chair: David Kaplan

Estimating marginal effects with zero-inflated Poisson models
Mr. Chendong Li

Probabilistic projections of country-level progress to the UN SDG indicator of minimum proficiency in reading and mathematics
Prof. David Kaplan

Fast and efficient robust Bayesian meta-analysis with spike-and-slab priors
Mr. František Bartoš

An innovative way of estimating subgroups mean estimates: SABDB
Dr. Sinan Yavuz

Multilevel heterogeneous factor model with fixed covariates
Ms. Meijin Lin

GH: Meridian 3-4

Session: Applications of Cognitive Diagnostic Models
Chair: Wenchao Ma

Analyzing teacher mathematics skills using cognitive diagnosis modeling
Mr. Nuryim Shora

An empirical comparison of cognitive diagnosis model and multidimensional IRT
Prof. Wenchao Ma

The choice between cognitive diagnosis and item response theory: A case study from medical education
Prof. Youn Seon Lim

Cognitive diagnostic models for measuring 21st century skills
Ms. Kristin Lansing

MAC: Johnson

Session: Process Data Analysis
Chair: Tracy Sweet

Advancing behavioral pattern clustering with time-warped longest common subsequence method on process data
Dr. Qiwei He

Understanding the evolution of individual response process: An exploratory approach
Ms. Ruiting Shen

A Copula-based joint model for item responses and response times
Mr. Sunbeom Kwon

Modeling process data using latent space models
Dr. Tracy Sweet

A utility-maximization framework for joint modeling of time and accuracy
Dr. Weicong Lyu

MAC: Thomas Swain

Session: Differential Item Functioning and Measurement Invariance I
Chair: Qingzhou Shi

Evaluation of partial measurement invariance under sparse ordinal indicators using induced Dirichlet threshold priors
Mr. Fatih Ozkan

Statistical analysis of large-scale item response data under measurement non-invariance: A new alignment method and its application to PISA 2022
Dr. Jing Ouyang

Machine learning methods for differential item functioning: A systematic review
Mr. Mubarak Mojoyinola

Investigating CogAT 7: Intersectional measurement invariance using ASEM
Dr. Qingzhou Shi

Can measurement invariance be established in a non-ergodic situation?
Mr. YeongJin Jo

2:30 p.m. -
3:45 p.m.

GH: Think 4

Session: Conceptual Issues in Measurement
Chair: Derek Briggs

From interval scales to scales with intervals
Prof. Derek Briggs

Tailoring educational assessments for varied student demographics: An initial exploration
Dr. Sandip Sinharay

An update on Jaeger & Hendricks: Publishing in psychological measurement
Mrs. Victoria Quirk

GH: Think 5

Session: Dynamic Value Added Models
Chair: Ernesto San Martin

Dynamic value-added in school effectiveness: A model-free approach
Dr. Sebastien Van Belleghem

Temporally dynamic, cohort-varying value-added models
Dr. Ernesto San Martin

Bayesian approach to modeling dynamic group membership in nonlinear random effects models
Prof. Nidhi Kohli

GH: Think 3

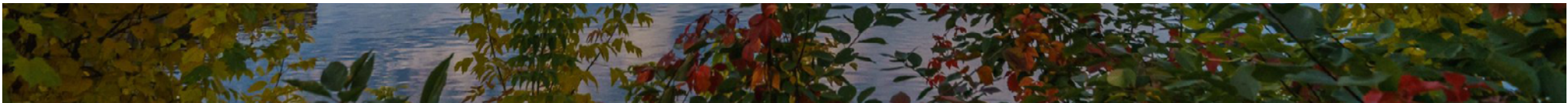
Session: What Can Parameter Moderation do for You?
Chair: Sanford Student

Improving the evaluation of construct change over time: Comparing longitudinal moderated nonlinear factor analysis to the conventional first-order growth model
Dr. Siyuan Marco Chen

Advancing a general framework of parameter moderation
Dr. Ethan McCormick

Individual variability as a moderator of latent structural relations
Mr. Joshua R. Shulkin

Generalizing the specification and estimation of item heterogeneity models with parameter moderation
Dr. Sanford Student



**TUESDAY
CONTINUED**
3:45 p.m. -
4:15 p.m.

GH: Meridian Ballroom Foyer

Refreshment Break

4:15 p.m. -
5:00 p.m.

GH: Meridian 1-2

Dissertation Award Speaker: Dr. Mark Himmelstein
Measuring Persuasion Without Measuring a Prior Belief: A New Application of Planned Missing Data Techniques
Chair: David Kaplan

5:15 p.m. -
7:15 p.m.

MAC: Memorial Hall

Welcome Reception

5:15 p.m. - 7:15 p.m. • Welcome Reception

5:30 p.m. • Welcome Remarks
Prof. Nidhi Kohli, Prof. LeAnne Johnson, and Prof. Frank Symons

5:45 p.m. - 7:15 p.m. • Poster Session

This year's Welcome Reception is in combination with the Poster Session. Enjoy light appetizers, a cash bar, an appearance by Goldy the Gopher - UMN Mascot, all while presenters will be at their posters for attendees to explore a diverse collection of psychometric research.



9:00 a.m.
- 10:15 a.m.

GH: Meridian 1-2

Session: Mediation Analysis
Chair: Qijin Chen

On structural misspecifications in latent variable mediation analysis
Mr. Bing Cai Kok

Advancing multiple-group mediation using Bayesian regularization
Ms. Emma Somer

Nonlinear mediation model with Bayesian p-splines
Dr. Qijin Chen

Investigating the impact of cross-loadings on model fit and mediation inferences in the latent mediator model
Ms. Qiulin Lu

Longitudinal heterogeneous mediation analysis with latent mediators and a time-to-event outcome
Dr. Rongqian Sun

GH: Meridian 3-4

Session: Network Models I
Chair: Hao Luo

Comparing symptom network structure across multiple psychiatric disorders
Dr. Hao Luo

[Degree] distributions in psychological networks
Dr. Jonathan Park

Neighborhood selection in cross-sectional network analysis for ordinal data
Mr. Kai Jannik Nehler

The impact of measurement error in dynamic network models
Ms. Reeta Kankaanpää

The invariance partial pruning approach to the network comparison in longitudinal data
Mr. Xinkai Du

MAC: Johnson

Session: Generative Psychometrics: Advancing Psychological Scale Development Through Large Language Models
Chair: Hudson Golino

AI-GENIE: A simulation study on the fully automatic scale development methodology
Ms. Lara Russell-Lasalandra

Empirical validation of AI-GENIE
Dr. Alexander Christensen

Optimizing LLM embeddings for automatic item development and validation
Dr. Hudson Golino

MAC: Thomas Swain

Session: Validity
Chair: Dr. Eduardo Alarcon-Bustamante

Understanding the predictive capacity of admission test scores across the scale
Mr. Pablo Espinoza

Decomposing the predictive capacity of a selection test
Dr. Eduardo Alarcón-Bustamante

Psychometric measurement of forecasters using the wisdom of the crowd
Ms. Jessica Helmer

GH: Think 4

Session: Cognitive Diagnostic Models I
Chair: Jonathan Templin

Bayesian criterion-referenced diagnostic classification models
Dr. Jonathan Templin

A Bayesian semi-parametric framework for cognitive diagnostic models
Mr. Michel Cordoba

Model-based differential item functioning detection in cognitive diagnostic assessments
Ms. Song Zhili

GH: Think 5

Session: Computer Adaptive Testing I
Chair: Susan Embretson

Variable-length fully Bayesian adaptive testing and its stopping criteria
Dr. Luping Niu

A Two-Level Adaptive Testing with Polytomous Items
Prof. Seung Choi

Item parameter estimates with non-ignorable missing data patterns in CATs
Dr. Steven Nydick

Linear-on-the-fly testing (LOFT): Which design to choose?
Prof. Susan Embretson

Efficient online item parameter estimation in small-sample CAT using gradient descent methods
Dr. Zichu Liu

GH: Think 3

Session: IRT Estimation
Chair: Seock-Ho Kim

Joint consistency of a multidimensional nonparametric continuous response model
Mr. Mauricio Castillo

Generative adversarial networks for high-dimensional item factor analysis
Mr. Nanyu Luo

Some standard errors of the polytomous item response theory models
Prof. Seock-Ho Kim

Weighted likelihood estimator and its standard errors for sequential IRT models
Mr. Yikai Lu

10:15 a.m.
- 10:45 a.m.

GH: Meridian Ballroom Foyer

Refreshment Break

10:45 a.m. -
11:45 a.m.

GH: Meridian 1-2

Career Lifetime Achievement Award: Prof. Shizuhiko Nishisato
Reminiscing Controversies Over Joint Graphical Display in Quantification
Chair: Francis Tuerlinckx

11:45 a.m. -
1:30 p.m.

Lunch (On Your Own) | Recommended Restaurants

WEDNESDAY
CONTINUED
1:30 p.m. -
2:45 p.m.

GH: Meridian 1-2

Session: Artificial Intelligence II
Chair: Ting Wang

Artificial neural networks excel in predicting missingness in psychometric data
Mr. Longfei Zhang

Using knowledge graphs to better understand test construction
Dr. Magdalen Beiting-Parrish

Enhancing model generalizability for understanding CPS behaviors across different tasks: A large language model-based approach
Prof. Mengxiao Zhu

Enhancing citation accuracy: Leveraging the NCBI API to verify and correct AI-generated references
Dr. Ting Wang

GH: Meridian 3-4

Session: Structural Equation Modeling I
Chair: Francis Tuerlinckx

Statistical curvature and algorithmic convergence in factor models
Dr. Francis Tuerlinckx

A empirical Bayesian solution to the estimation of the covariance matrix of sample covariances in SEM
Dr. Hao Wu

Robust estimation of structural equation models
Dr. Max Welz

Bayesian item factor analysis when indicator variables have skewed marginal distributions
Dr. Noah Padgett

Regularized exploratory structural equation modeling for multiblock data
Ms. Tra Le

MAC: Johnson

Session: Methods for Dynamic and Complex Data
Chair: Sy-Miin Chow

The hidden journey of affect dynamics: Bridging physiological and behavioral states through Markovian processes
Dr. Francesca Borghesi

Optimizing ESM prompt timing with mobile sensing: Predicting non-compliance using behavioral and contextual data
Dr. Koen Niemeijer

Interpreting parameters of dynamic regression models
Dr. Sigert Ariens

Accounting for interindividual differences in intensive longitudinal data from new samples using pre-learned embeddings in machine learning models
Dr. Sy-Miin Chow

MAC: Thomas Swain

Session: Item Response Theory II
Chair: Ken Fujimoto

Comparing fit indices for predicting difficulty of automatically generated items
Mr. Haoyang Yu

Optimal designs for Thurstonian IRT models based on linear paired comparisons
Prof. Heinz Holling

Estimating the primary dimensional correlations of nested-dimensionality data structures
Dr. Ken Fujimoto

Asymptotic standard errors for reliability coefficients in item response theory
Ms. Youjin Sung

GH: Think 4

Session: Longitudinal Data Analysis I
Chair: Satoshi Usami

Using recency to improve scoring in longitudinal assessments
Mr. Aaron Myers

Cost-effective ESM studies: Integrating budget constraints into sample size decisions
Mr. Jordan Revol

Matrix decomposition SEM tree
Dr. Naoya Todo

Condence interval-based determinations for pptimal sample sizes and designs in a random intercept panel model
Dr. Satoshi Usami

Examining item discrimination in growth measurement: A multilevel perspective
Prof. Xiangyi Liao

GH: Think 5

Session: Perspectives from the Inaugural Meeting of the Society for the Study of Measurement
Chair: Mark Wilson

Mapping out the hexagon measurement framework in the human sciences
Prof. Mark Wilson

How uncertainty allows measurement to produce useful results
Dr. Kent Staley

Re-interpreting the Weber-Fechner law as a probabilistic measurement model
Dr. William Fisher

GH: Think 3

Session: Cognitive Diagnostic Models II
Chair: Jimmy de la Torre

Evaluating the classification accuracy of an adaptive diagnostic test
Mr. Ahmed Bediwy

A Hamiltonian-Gibbs sampler with monotonicity constraints for diagnostic classification models
Dr. Alfonso Martinez

Consistency theory of general nonparametric classification methods in cognitive diagnosis
Mr. Chengyu Cui

Increasing the flexibility of the MC-DINA model
Prof. Jimmy de la Torre

Examining the occurrence of paradoxical scoring in cognitive diagnostic models
Mr. Tsuyoshi Kato

GH: Meridian Ballroom Foyer

Refreshment Break



WEDNESDAY
CONTINUED
3:15 p.m. -
4:30 p.m.

GH: Meridian 1-2

Session: Adaptive Assessment and Learning
Chair: Hyeon-Ah Kang

Latent propensity modeling of hint-seeking behavior in intelligent tutoring systems
Dr. Hyeon-Ah Kang

Bayesian adaptive learning assessment for efficient skill acquisition
Dr. Sangbeak Ye

Personalized adaptive, dynamic, and formative assessment in statistics education
Dr. Wilco Emons

Sequential rank aggregation: An optimal active estimation approach
Prof. Xiaouu Li

GH: Meridian 3-4

Session: Machine Learning
Chair: Yuqi Gu

Use factor-augmented regularized latent regression to analyze complex large-scale assessment
Mr. He Ren

Personalized predictive modeling with Bayesian nonparametric ensemble learning
Ms. Mingya Huang

A two-step imputation approach combining IRT and deep-learning methods in large-scale survey assessments
Dr. Usama Ali

Generalized grade-of-membership estimation for high-dimensional locally dependent data
Dr. Yuqi Gu

MAC: Johnson

Session: Making Sense of High-Dimensional Data in the Psychological Sciences
Chair: Nathaniel Hellwig

Multiple linked tensor factorization
Prof. Eric Lock

Classifying alcoholism from electroencephalography data using high-dimensional logistic regression
Mr. Jong Won Lee

Capturing fluctuations in high-dimensional intensive longitudinal data
Prof. Katerina Marcoulides

Predicting attention problems from brain connectivity using high-dimensional Poisson regression
Dr. Kelly Duffy

High-dimensional regression and classification of psychological data
Prof. Nathaniel Helwig

MAC: Thomas Swain

Session: Practical Issues in Testing: Norming, Equating, ATA and fairness
Chair: Jorge Gonzalez

Vectorizing test constraints for faster automated test assembly
Dr. Anthony Shiver

Integrating latent variables into test equating methods
Ms. Inés Varas

Analyzing identifiability in statistical models for test equating
Prof. Jorge Gonzalez

Regression-based norming of tests with small sample sizes
Dr. Nicolas Sander

Bayesian augmentation for real-time fairness monitoring in assessments
Mr. Shea Valentine

GH: Think 4

Session: Differential Item Functioning and Measurement Invariance II
Chair: Brandon LeBeau

Machine learning approaches to item-level bias detection
Dr. Brandon LeBeau

Detecting differential item functioning in forced-choice models with misspecification
Dr. Jacob Plantz

A two-step method for detecting differential item functioning
Ms. Qing Zeng

A neural network approach to small sample intersectional DIF detection
Mr. Yale Quan

DIF detection in ordinal survey data without pre-specified groups or anchors
Dr. Gabriel Wallin

GH: Think 5

Session: Missing Data
Chair: Victoria Savalei

DSEM with missing not at random intensive longitudinal data
Dr. Daniel McNeish

Using factor scores estimated with missing data
Dr. Ehri Ryu

Methods for pooling K-means clustering results in multiply imputed data
Dr. Joost Van Ginkel

Optimal approaches for treating item-level missing data in composite-level models
Dr. Victoria Savalei

4:45 p.m. -
5:30 p.m.

GH: Meridian 1-2

Invited Speaker: Dr. Matthew Madison
Diagnostic Classification Models: Advancement Through Simplicity
Chair: Daniel Bolt

GH: Meridian 3-4

Invited Speaker: Dr. Jessica Flake
Methodological Research for the Open Science Era
Chair: Mijke Rhemtulla



GH: Meridian 1-2

Session: Revision of the 2014 Standards for Educational & Psychological Testing: Updates and Input*Chair: Michael Rodriguez*

Members of the committee tasked with the revision of the Standards for Educational and Psychological Testing will provide an overview of the revision process, followed by an open conversation with the audience.

Participants include Michael Rodriguez, Kristen Huff, Fred Oswald, Andy De Los Reyes, Ye Tong, and other members of the committee.

GH: Meridian 3-4

Session: Automated Scoring
Chair: JiHoon Ryoo

Comparison of rating accuracy and rationales between AI ratings and human ratings of AP Chinese essays
Mr. Haowei Hua

Evaluating the accuracy, reliability, and applicability of multiple large language models in automated scoring for writing assessments
Mr. Henry S. Makinde

Improving automated scoring in reading assessments: Compress first, score next
Dr. Ji Yoon Jung

Investigation of NLP and ML-based algorithms for automated essay scoring
Prof. JiHoon Ryoo

Rationale and patterns of misclassified text in automated scoring systems
Mr. Haowei Hua

MAC: Johnson

Session: Bayesian Methods and Their Applications
Chair: Sophia Rabe-Hesketh

Evaluating strategies for handling label switching in Bayesian latent variable models
Dr. Lihan Chen

Prior sensitivity in Bayesian structure learning of Gaussian graphical models
Mr. Marwin Carmo

Infinitesimal Jackknife standard errors for Bayesian quantile regression and other misspecified models
Dr. Sophia Rabe-Hesketh

Are Bayesian regularization methods a must for multilevel dynamic latent variables models?
Mr. Vivato Vahatriniaina Andriamiarana

Bayesian graphical models for factorial correlation estimation
Ms. Yifan Zhang

MAC: Thomas Swain

Session: Causal Inference I
Chair: Wen Luo

Between-case incidence rate ratio: A design comparable effect size for count outcomes in single case experimental designs
Dr. Wen Luo

Between-case incidence rate ratio for count outcomes in single case experimental designs: A Monte Carlo simulation
Dr. Haoran Li

Using regression discontinuity to evaluate language learner reclassification
Dr. Hirotaka Fukuhara

Causal inference in high dimensional settings via sparse autoencoders for improved propensity scores estimation.
Mr. Roberto Faleh

Causal decomposition analysis with synergistic interventions: A triply-robust machine learning approach to addressing multiple dimensions of social disparities
Ms. Su Yeon Kim

9:00 a.m. -
10:15 a.m.

GH: Think 4

Session: Novel IRT Models
Chair: Leah Feuerstahler

Defining asymmetric item response theory
Dr. Leah Feuerstahler

Bayesian IRT for continuous measurement of student proficiency
Dr. Logan Rome

Extending the Quasi-Poisson IRT model: On choosing latent structure
Dr. Nelis Potgieter

Modeling dynamic test-taking behavior: a response time based HMM-IRT approach
Dr. Rehab AlHakmani

The two-parameter Quasi-Poisson item response theory model
Dr. Xin Qiao

GH: Think 5

Session: Longitudinal Cognitive Diagnostic Models
Chair: Kazuhiro Yamaguchi

Development and application of the random effect diagnostic classification multilevel growth curve model
Dr. Kazuhiro Yamaguchi

Longitudinal designs for diagnostic models: Identification and estimation
Mr. Trung Le

A statistical framework for dynamic cognitive diagnosis in digital environments
Ms. Yawen Ma

Evaluation of the effectiveness of validation methods on Q-matrix misspecifications with longitudinal diagnostic classification models
Ms. Hyunjee Oh

GH: Think 3

Session: Computer Adaptive Testing II
Chair: Huahua Chang

Leveraging computerized adaptive testing (CAT) to overcome teaching and learning challenges in gateway STEM courses at U.S. universities
Dr. Hua-Hua Chang

You can't tuna fish, but can you tune a CAT?
Mr. Joseph DeWeese

Incorporating omission behaviors into computerized adaptive testing: A psychometric evaluation using IRTree models
Ms. Lixin (Lizzy) Wu

Post-hoc multiple comparison tests in adaptive measurement of change
Mr. Raj Wahlquist

10:15 a.m.
- 10:45 a.m.

GH: Meridian Ballroom Foyer

Refreshment Break

10:45 a.m. -
11:45 a.m.

GH: Meridian 1-2

Keynote Speaker: Prof. Carolyn Anderson
Association and Measurement Models for Categorical Data
Chair: Sy-Miin Chow



THURSDAY
CONTINUED
11:45 a.m. -
1:30 p.m.

Lunch (On Your Own) | *Recommended Restaurants*

GH: Meridian 1-2

Session: Artificial Intelligence III
Chair: Xijuan Zhang

Adapting transformers to wording-based item difficulty prediction
Mr. Jan Netik

Automated cognitive feature generation: LLM applications in item difficulty modeling
Mr. Mubarak Mojoyinola

Differential embedding dimension functioning in natural language processing for psychological assessment
Mr. Pengda Wang

Using a psychometric approach to design AI agents with personality under different scale formats
Dr. Xijuan Zhang

Enhancing systematic review efficiency: A generative AI-powered data extraction pipeline
Ms. Xiyu Wang

GH: Meridian 3-4

Session: Network Models II
Chair: Richard Feinberg

Exploring link prediction in social networks
Ms. Apoorva Verma

Psychological networks as scale-free and small-world networks: Insights from large-scale survey data
Dr. Guangyu Zhu

Estimating causal effects on psychological networks using item response theory
Mr. Joshua Gilbert

Item pool maintenance in computer adaptive tests: A network approach
Dr. Klint Kanopka

Using social network analysis to detect and interpret network collusion
Dr. Richard Feinberg

MAC: Johnson

Session: Moderation and Mediation Analysis
Chair: Zuchao Shen

Assumptions in latent moderation: The role of measurement (non)-invariance
Dr. Kaylee Litson

MNLFA with three or more latent dimensions
Dr. Noah Padgett

Bayesian nonparametric nonlinear moderation model
Dr. Siyi Wang

Cost-efficient sampling strategies for experiments detecting moderation and main effects
Dr. Zuchao Shen

MAC: Thomas Swain

Session: Model-Data Fit
Chair: Daniel McNeish

Recent developments in dynamic fit index cutoffs for latent variable models
Dr. Daniel McNeish

Cut-off for the deleted-one-covariance-residual case influence measure in the covariance structure analysis
Dr. Fathima Jaffari

Robust methods for computing structural fit indices: A Monte Carlo investigation
Dr. Graham Rifenbark

Can we rely on reliable parameter estimates?
Dr. Niels Vanhasbroeck

A comparison of IRT model fit indices under different misfitting conditions
Mr. Xinyu Liu

GH: Think 4

Session: Computer Adaptive Testing III
Chair: Andries Van der Ark

Adaptive tests and questionnaires using online survey tools
Dr. Andries Van der Ark

Issues in calibrating post operational CAT data
Dr. Eric Loken

Directionally-weighted loss functions for shaping multistage adaptive testing item modules
Dr. Matthew Naveiras

Baseline scores and testing mode influence responder thresholds: A comparison of coefficients of repeatability between PROMIS computer adaptive tests and short forms
Dr. Minji Lee

Computer adaptive testing for ecological momentary assessment: Considerations and evaluations
Dr. Teague Henry

GH: Think 5

Session: Computational Modeling of Psychological Systems
Chair: Ria Hoekstra

Toward a psychologist's guide to computational modeling: An interdisciplinary scoping review of modeling roadmaps
Ms. Jill de Ron

Mapping the dynamics of idiographic network models to the network theory of psychopathology using stability landscapes
Dr. Ria Hoekstra

Unraveling symptom dynamics: A mechanistic approach to feedback loops and causal discovery
Ms. Kyuri Park

sdbuildR: Building system dynamics models in R
Ms. Kyra Evers

GH: Think 3

Session: Tools and Techniques for Quantitative methods and Psychometrics
Chair: Andres Christiansen

Bayesian evaluation of latent variable models: A practical tutorial with the R package beval
Ms. Xiaohui Luo

ILSAmerge and ILSAstats: Two new R packages for international large-scale assessments
Dr. Andrés Christiansen

ShinyFORC: A shiny app for Bayesian probabilistic forecasting
Ms. Kjorte Harra

Rationale and patterns of misclassified text in automated scoring systems
Dr. Jiayu Yao

1:30 p.m. -
2:45 p.m.



<div>THURSDAY CONTINUED</div> <div>3:00 p.m. - 4:15 p.m.</div>	<div>GH: Meridian 1-2</div> <div> Session: Natural Language Processing <i>Chair: Jinsong Chen</i> </div> <div> Uncovering cognitive strategies in tower of London using n-gram analysis Dr. Alexandre Serpa </div> <div> Predicting reading passage grades: Text features vs. contextual embeddings Dr. Ann Hu </div> <div> Documents are people and words are items: A psychometric approach to textual data with contextual embeddings Prof. Jinsong Chen </div> <div> A joint factor-topic model for multimodal survey data analysis Mr. Yuxiao Zhang </div>	<div>GH: Meridian 3-4</div> <div> Session: Bridging Exploratory Graph Analysis and Complexity Science: Advancing the Understanding of Psychological Structures and Dynamics <i>Chair: Alexander Christensen</i> </div> <div> Damped linear oscillators in emotion dynamics: Influence of fundamental parameters on dynamic EGA structures Dr. Aleksandar Tomašević </div> <div> Taxonomic graph analysis Dr. Alexander Christensen </div> <div> The ergodicity information index: Bridging dynamic exploratory graph analysis with complexity science Dr. Hudson Golino </div>	<div>MAC: Johnson</div> <div> Session: Latent Class and Mixture Models <i>Chair: Jang Schiltz</i> </div> <div> Finite mixture models for an underlying zero-one inflated Beta distribution Prof. Jang Schiltz </div> <div> Measuring effort with a multi-level non-hierarchical Gaussian mixture model Dr. Kirk Vanacore </div> <div> A mixture multidimensional nominal response model to account for different faking strategies Mr. Timo Seitz </div> <div> Bayesian and frequentist model evaluation for growth mixture modeling Ms. Xingyao Xiao </div>	<div>MAC: Thomas Swain</div> <div> Session: Differential Item Functioning and Measurement Invariance III <i>Chair: Anne Thissen-Roe</i> </div> <div> From the roots: Likelihood ratio DIF testing for IRTrees Dr. Anne Thissen-Roe </div> <div> Testing and correcting for differential test functioning Prof. Peter Halpin </div> <div> Detecting uniform differential item functioning with the permutation test Mr. Walton Ferguson </div> <div> Guidelines for the interpretation of NCDIF as an effect size measure Dr. Víctor H Cervantes </div>
	<div>GH: Think 4</div> <div> Session: Item Response Theory III <i>Chair: Brooke Magnus</i> </div> <div> Rethinking discrimination: A marginal effects approach to IRT Dr. Brooke Magnus </div> <div> Item response models for rating relational data Dr. Chih-Han Leng </div> <div> A generalization of multidimensional item response theory parameters Dr. Daniel Morillo </div> <div> An informative index for evaluating equiprecision in IRT-based assessments Mr. Jesus Delgado </div> <div> Adapting fisher information-based difficulty and discrimination IRT measures to handle multimodality Mr. Peter Johnson </div>	<div>GH: Think 5</div> <div> Session: Reliability <i>Chair: Joshua Gilbert</i> </div> <div> Item-level heterogeneity in value added models: Implications for reliability, cross-study comparability, and effect sizes Mr. Joshua Gilbert </div> <div> Discretization error in psychological science Dr. Mathias Berggren </div> <div> Reliability of unidimensional ordinal scores: Insights from two simulation studies Prof. Sebastien Beland </div>	<div>GH: Think 3</div> <div> Session: Advances in Experimental Design, Measurement, and Predictive Inference <i>Chair: Ken Kelley</i> </div> <div> Best treatment from a set of options: An optimal sequential method for principled experimentation Dr. Ken Kelley </div> <div> The psychometrics of uncertainty elicitation for real world forecasting problems Dr. Mark Himmelstein </div> <div> Application of conformal prediction in language sample analysis Mrs. Yourmin Hong </div> <div> Optimal design and analysis strategies for equivalence testing Dr. Zuchao Shen </div> <div> Don't let your likert scales grow up to be visual analog scales: Understanding the relationship between number of response categories and measurement error Ms. Siqi Sun </div>	
<div>4:15 p.m. - 4:30 p.m.</div>	<div>MAC: Memorial Hall</div> <div>Group Photo</div>			
<div>4:30 p.m. - 4:45 p.m.</div>	<div>GH: Meridian Ballroom Foyer</div> <div>Refreshment Break</div>			
<div>4:45 p.m. - 5:45 p.m.</div>	<div>GH: Meridian 1-2</div> <div> Early Career Award: Dr. Maria Bolsinova Psychometrics for Adaptive Learning: Challenges and Solutions <i>Chair: Andries van der Ark</i> </div>			



9:00 a.m. -
10:15 a.m.

GH: Meridian 1-2

Session: Automated Item Generation
Chair: Stella Kim

Automatic item generation for figure reasoning tests using generative AI
Ms. Jing Huang

Generating quantitatively grounded free-text using large language models
Ms. Lindley Slipetz

Evaluating cut score consistency in standard setting procedures for automatic item generation testing
Dr. Stella Kim

AI-driven item generation for PIRLS
Dr. Ummugul Bezirhan

GH: Meridian 3-4

Session: Longitudinal Data Analysis II
Chair: Evelien Schat

Perfect timing: An algorithm for leveraging optimal temporal design to enhance statistical power
Ms. Anne-Charlotte Beloeil

Person-specific updating of EWMA control limits in sparse in-control data scenarios
Dr. Evelien Schat

Lowering participant burden in long-term ESM studies through variable sample size EWMA
Ms. Fien De Pauw

Nonparametric estimation of latent growth parameters and heterogeneity
Mr. Graham Buhrman

Estimating non-normal random effects in nonlinear random effects models
Ms. Yue Zhao

MAC: Johnson

Session: Structural Equation Modeling II
Chair: Carl Falk

Confidence intervals based on scaled difference tests in SEM
Prof. Carl Falk

Bayesian fit measures in detecting misspecified multilevel structural equation modeling
Dr. Chunhua Cao

A priori distributions in Bayesian structural equation modeling: A scoping review protocol
Dr. Jorge Sinval

The influence of informative priors in the estimation of MIMIC model parameters with small sample sizes and outliers
Ms. Nancy Alila

Advancing contingent paradigms evaluating model fit in structural equation modeling
Prof. Thomas Niemand

MAC: Thomas Swain

Session: Cognitive Diagnostic Models III
Chair: Xue Wang

An approach that can validate both Q-Matrices and attribute hierarchies in cognitive diagnosis models
Dr. Lingling Wang

The influence of Q matrix mis-specified on the classification of nonparametric cognitive diagnosis based on hamming distance
Dr. Sun Rui

Bayesian estimation of the Q-matrix and attribute hierarchy in DINA model
Dr. Xue Wang

A new reliability framework for cognitive diagnosis models
Prof. Youn Seon Lim

GH: Think 4

Session: IRT Applications
Chair: Qi (Helen) Huang

Measuring forecasting proficiency: An item response theory approach
Mr. Fabio Setti

Demographic influences on spatial ability: A 2PL and Rasch tree analysis
Mr. Justice Dadzie

Desirability-matched Thurstonian IRT scale construction leveraging sentiment analysis
Dr. Kensuke Okada

Resource usage and its influence on ability estimation – exploring different IRTree models in the context of PISA-LDW data
Dr. Leonard Tetzlaff

Measuring print exposure using a bifactor unipolar IRT model
Prof. Qi (Helen) Huang

GH: Think 5

Session: Advances in the Evaluation of Statistical Model Complexity
Chair: Wes Bonifay

Fitting propensity analysis in R
Dr. Sonja Winter

The fitting propensity of 1-parameter item response theory models
Dr. Hyejin Shim

The fitting propensity of multilevel models
Ms. Yun-Kyung Kim

The fitting propensity of factor analysis models
Dr. Wes Bonifay

10:15 a.m. -
10:45 a.m.

GH: Meridian Ballroom Foyer

Refreshment Break

10:45 a.m. -
11:30 a.m.

GH: Meridian 1-2

Invited Speaker: Dr. Aleksandar Tomašević
Capturing Emotional Dynamics: Integrating Transformer Models with Dynamic Exploratory Graph Analysis
Chair: Hudson Golino

GH: Meridian 3-4

Invited Speaker: Dr. Keith Markus
Four Takes on Construct Validity: From Logical Empiricism to Varieties of Scientific Realism
Chair: Leah Feuerstahler

FRIDAY
CONTINUED
11:45 a.m. -
1:00 p.m.

GH: Meridian 1-2

Session: Theory Construction Methodology
Chair: Jason Nak

Characterisations of phenomena

Mr. Jason Nak

The boundaries between assumptions and phenomena in formal modeling: A case study of a computational model of addiction
Mr. Jesse Boot

How cause-effect reasoning impedes theory development: Why we should focus on mechanisms and functions instead
Dr. Noah van Dongen

AI-assisted theory construction with theorazer: Do LLMs and humans agree on causal relationships?
Ms. Meike Waaijers

GH: Meridian 3-4

Graduate Student Datathon Competition
Chair: Patricia Martinkova

In this session, the three finalist teams of the IMPS 2025 Student Datathon will present their work. The Datathon is a collaborative competition designed to engage participants in the analysis of an innovative dataset using state-of-the-art psychometric methods.

Hierarchical IRT Modeling of Hearts and Flowers Cognitive Assessment: A Progressive Approach Towards Full Bayesian Inference
Team IRTdlscholars: Jingyi Guo, University of Notre Dame; Matheus de Melo Rodrigues, Mackenzie Presbyterian University

Integrating IRT-Estimated Parameters to Machine Learning Models to Model Accuracy in the Hearts and Flowers Executive Functioning Task
Team Item Responder: Zhaoyu Wang, Georgia Institute of Technology; Na Liu, Georgia Institute of Technology; Ruiting Shen, New York University

A Two-Stage Framework Combining Bayesian Additive Regression Trees and Mixed-Effects Modeling for the Prediction of Cognitive Performance
Team UVA Netlab: Siqi Sun; Lindley R. Slipetz, Department of Psychology, University of Virginia

MAC: Johnson

Symposium: Remembering John Nesselroade
Chair: Hudson Golino

This session celebrates the life and career of John Nesselroade through a series of brief, personal reflections by former students, colleagues, and collaborators.

MAC: Thomas Swain

Session: Factor Analysis
Chair: Inhan Kang

Factor score indeterminacy of sum score and common factor score
Mr. Hoang Nguyen

Integration of latent space and confirmatory factor analysis to explain unexplained person-item interactions
Dr. Inhan Kang

A GLLAMM approach for measuring child-teacher interaction quality
Dr. JoonHo Lee

A new representation of factor score and its theoretical properties
Dr. Naoto Yamashita

Development and validation of a ren yuan measurement scale: Exploring social self-perception in Chinese cultural contexts
Ms. Ching Yi Chiang

GH: Think 4

Session: Multivariate Analysis
Chair: Jay Verkuilen

Generalized structured component analysis accommodating convex components: A knowledge-based multivariate method with interpretable composite indexes
Dr. Gyeongcheol Cho

A multivariate generalization of the glass delta effect size
Prof. Jay Verkuilen

Comparison of missing data techniques in generalized structured component analysis
Ms. Luqi He

Evaluating assumption violations in latent APIM: Implications for effect estimation
Ms. Shiyao Wang

Evaluating statistical power in generalized structured component analysis
Ms. Zhiyuan Shen

GH: Think 5

Session: Causal Inference II
Chair: Jee-seon Kim

Examining heterogeneity in causal mediation effects
Prof. Hanna Kim

A taxonomy of heterogeneity in causal effects
Prof. Jee-Seon Kim

Item-level heterogeneous treatment effects in instrumental variables regression: Fixed- and random-item approaches
Dr. Sanford Student

Estimation of individual treatment effect with transfer learning
Ms. Şeyda Aydın



FRIDAY
CONTINUED
1:00 p.m. -
2:15 p.m.

Lunch (On Your Own) | Recommended Restaurants

2:15 p.m. -
2:30 p.m.

MAC: Memorial Hall

Happy 90th Anniversary

*Please join us for cake, coffee, and tea to celebrate a very
Happy 90th Anniversary to the Psychometric Society!*

2:30 p.m. -
3:30 p.m.

MAC: Memorial Hall

Presidential Address: **Prof. Denny Borsboom** Psychometric Models and Psychological Theories

Chair: David Kaplan

3:30 p.m. -
4:00 p.m.

MAC: Memorial Hall

Members Meeting

4:00 p.m. -
4:45 p.m.

MAC: Memorial Hall

Awards and Closing Ceremony

6:00 p.m. -
9:00 p.m.

Nicollet Island Pavilion | Address: 40 Power Street, Minneapolis, MN 55401

Closing Banquet Reception



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Special thank you to our IMPS 2025 Sponsors and Exhibitors this year!

The IMPS 2025 Exhibitors and Sponsors will be located in the at the Graduate Hotel in the Meridian Ballroom Foyer (2nd Floor).
All IMPS refreshment breaks will be located in this area.

Please plan time to and visit with these companies and organizations during the week of IMPS 2025!

EXHIBIT AREA HOURS

Tuesday, July 15 | 10:00 a.m. - 4:15 p.m.
Wednesday, July 16 | 10:00 a.m. - 3:15 p.m.
Thursday, July 17 | 10:00 a.m. - 4:45 p.m.
Friday, July 18 | 10:00 a.m. - 12:00 p.m.

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LEVEL TWO SPONSORS



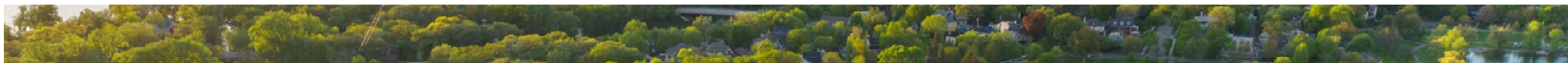
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