IMPS 2023
July 25-28 (Short Courses July 24)
University of Maryland
College Park, Maryland, United States

Final Program
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Dear Attendees and Guests,

We are pleased to welcome you to IMPS 2023, the 88th Annual Meeting of the Psychometric Society, held at the University of Maryland in College Park. This marks the first time the meeting has been held in the United States since 2018 and we on the local organizing committee hope that it will be a very pleasant and enriching experience for all of you.

The University of Maryland (UMD) is the state’s flagship university and a leading public research institution, propelled by a $1.3 billion joint research enterprise. Located four miles from Washington, D.C., the university is dedicated to addressing the grand challenges of our time and is the nation’s first Do Good Campus. It is driven by a diverse and proudly inclusive community of more than 50,000 fearless Terrapins. UMD is a top producer of Fulbright scholars and offers an unparalleled student experience with more than 300 academic programs, 25 living-learning programs, and 400 study abroad programs. Spurred by a culture of innovation and creativity, UMD faculty are global leaders in their field and include Nobel laureates, Pulitzer Prize winners, and members of the national academies.

UMD’s Department of Human Development and Quantitative Methodology (HDQM), located in the College of Education, is one of the world’s leading centers for research on child and adolescent development, educational psychology, and cutting-edge psychometric and statistical methods. In addition to hosting IMPS 2023, The Quantitative Methodology: Measurement and Statistics (QMMS) program is widely recognized as being among the best programs in the country with exceptional students trained by faculty who are leaders within their research areas. The M.S. program gives individuals the broad range of skills necessary to serve as research associates in academic, government, education and business settings; while the Ph.D. program qualifies individuals to provide leadership in the conduct of research studies, to serve as applied statisticians, measurement, or evaluation specialists in school systems, industry, and government, and to teach quantitative courses at the collegiate level. The program also strongly supports students with an interest in an academic career as methodologist, statistician, or psychometrician.

The meeting starts with three parallel short courses on Monday, July 24. A graduate student mixer at The Hotel at the University of Maryland will be held Monday evening from 6:30 pm-8:30 pm The main meeting then runs from Tuesday, July 25, to Friday, July 28. The meeting’s opening and welcome will be on Tuesday at 9:00 am in the Colony Ballroom of the Adele H. Stamp Student Union. At 5:30 pm, the Welcome Reception will take place at The Hotel at the University of Maryland. The business portion of the meeting will conclude on Friday with the awards ceremony that is scheduled to end at 12:45 pm and directly follows the meeting of the members which begins at 11:30 am. We are especially excited to conclude the week with an excursion to the Spy Museum in Washington D.C., which will include food and drinks.

We are pleased to have a complete program featuring eminent keynote and invited speakers with topics spanning many areas of psychometrics. The College Park area has much to offer, within both the beautiful University of Maryland campus and the surrounding area which includes Washington, D.C. We have left time between the meeting and the Spy Museum excursion for those who wish to enjoy the many attractions that are available. We are thrilled that we can continue in-person meetings after a highly successful IMPS 2022, and we are confident IMPS 2023 will foster stimulating conversations and provide attendees and guests with a wonderful experience. Best wishes on a very satisfying meeting and thank you for joining us.

Jeff Douglas, University of Illinois Urbana-Champaign
President & Organizing Committee Chair

Hong Jiao, University of Maryland (Meeting Host Site)
Qiwei (Britt) He, Educational Testing Service
Frank Rijmen, Cambium Assessment
Local Organizing Committee
Short Course #1: From Collecting Log-data to Analyzing Process Indicators with logLime R Package
Monday, July 24, 2023 | 9:00 a.m. - 5:00 p.m.

Speaker:
Tomasz Żółtak

Short Course #2: Computerized Adaptive Testing and Multistage Testing with R
Monday, July 24, 2023 | 9:00 a.m. - 5:00 p.m.

Speakers:
Alina A. von Davier
Duanli Yan
Dr. Klaas Sijtsma  
*Tilburg University*  
Tuesday, July 25  
1:00 p.m. - 2:00 p.m.  

**2023 Career Award for Lifetime Achievement**  
Who Cares about Psychometrics?

Prof. Steven Culpepper  
*University of Illinois*  
Urbana-Champaign  
Wednesday, July 26  
1:35 p.m. - 2:35 p.m.  

**Keynote Speaker**  
Refining Hidden Markov Models for Diagnostic Research

Inhan Kang  
*The Ohio State University*  
Tuesday, July 25  
3:45 p.m. - 5:30 p.m.  

**2023 Dissertation Prize**  
A trilogy of modeling conditional dependence in and between responses and response times

Prof. Hong Jiao  
*University of Maryland, College Park*  
Thursday, July 27  
10:30 a.m. - 11:30 a.m.  

**Keynote Speaker**  
Integrating Item Product and Process Data to Enhance the Theory and Practices of Psychometric Analyses in Digital Assessments

Prof. Gongjun Xu  
*University of Michigan*  
Thursday, July 27  
3:05 p.m. - 3:50 p.m.  

**2023 Early Career Award**  
Identifiability of Cognitive Diagnosis Models

Dr. Jeff Douglas  
*University of Illinois*  
Urbana-Champaign  
Friday, July 28  
10:30 a.m. - 11:30 a.m.  

**2023 Presidential Address**  
Some dichotomies in restricted latent class models for diagnostic classification
Dr. Kim De Roover  
KU Leuven  
Tuesday, July 25  
9:15 a.m. - 10:00 a.m.  
Finding clusterwise measurement invariance with mixture multigroup factor analysis

Dr. Ed Merkle  
University of Missouri  
Tuesday, July 25  
9:15 a.m. - 10:00 a.m.  
Progress and Pitfalls in Bayesian Latent Variable Models

Dr. Nidhi Kohli  
University of Minnesota  
Wednesday, July 26  
10:30 a.m. - 11:15 a.m.  
Piecewise Random-Effects Models for Segmented Longitudinal Trends

Dr. Li Cai  
University of California, Los Angeles, and Vector Psychometric Group, LLC  
Wednesday, July 26  
10:30 a.m. - 11:15 a.m.  
Tinkering with parametric item response theory

Dr. Chun Wang  
University of Washington  
Wednesday, July 26  
11:20 a.m. - 12:05 p.m.  
VEMIRT: A Family of Variational Methods for Multi-dimensional IRT Applications

Dr. Qiwei (Britt) He  
Educational Testing Service  
Wednesday, July 26  
11:20 a.m. - 12:05 p.m.  
Sequence Mining Methods for Process Data Exploration
Graduate Student Mixer Reception  
**Monday, July 24 | 6:30 p.m. - 8:30 p.m.** 
The annual student mixer will take place on the rooftop at the Top of 7’s Ballroom at The Hotel at the University of Maryland *(7777 Baltimore Avenue)* located near the University of Maryland, College Park.

This event is exclusively for graduate students and will be hosted by the Psychometric Society. As a registered student, you are welcome to join this event for a complimentary appetizer buffet and cash bar, and meet other students from around the world. An RSVP was requested to attend.

Group Photo  
**Tuesday, July 25 | 2:00 p.m. - 2:15 p.m.**  
Colony Ballroom (Second Floor)

Immediately following the Keynote Session (Prof. Klaas Sijtsma), please stay seated for instructions from the IMPS staff and photographer to coordinate the annual group photo. All attendees are welcome to participate.

The group photo will be posted on the Society website for attendees to download after the conference.

IMPS 2023 Welcome Reception and Poster Session  
**Tuesday, July 25 | 5:30 p.m. - 7:30 p.m.**  
The Welcome Reception will be in combination with the Poster Session Reception located at The Hotel at the University of Maryland *(7777 Baltimore Avenue)*.

Light hors’oeuvres and a cash bar will be provided by the Psychometric Society. During the Welcome Reception, meeting attendees may explore a diverse collection of psychometric research at the conference poster session reception.

Presenters will be standing by their posters from 6:00 p.m. - 7:30 p.m. in this casual and fun setting.

**Click here** to view the IMPS 2023 list of poster titles and presenters.

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

Your guest is welcome to attend the reception for an additional fee. Stop by the IMPS registration desk (Grand Ballroom Lounge [First Floor]) to inquire.

**IMPS 2023 Closing Reception Excursion  
Friday, July 28 | 7:00 p.m. - 10:00 p.m.**  
The Closing Reception Excursion is new this year! The banquet and excursion events have been combined to create a fun, end-of-meeting experience at the Spy Museum in Washington, D.C. (700 L’Enfant Plaza SW). This event will take place on the evening of Friday, July 28, from 7:00 p.m. - 10:00 p.m. (Transportation available 6:15 p.m. - 10:30 p.m.)

This event is included in the attendee conference registration fee and offers optional bus transportation to and from Washington D.C., admission to the Spy Museum, and a reception with heavy buffet appetizers and a cash bar. The reception is a great opportunity to have fun and network with fellow attendees and guests.

Food and beverages are located on the rooftop of the Museum and on the 4th and 5th exhibit floors that are exclusive only to IMPS attendees (and guests). Your guest is welcome to attend for an additional fee. Stop at the Society Registration Desk to inquire at least 48 hours prior to the event.

**Transportation on your own:**  
Attendees are not required to use the transportation provided. On Friday, July 28, the IMPS educational sessions end by 12:45 p.m. Attendees may consider exploring D.C. on their own prior to the Closing Reception Excursion. Attendees can use the METRO to get to D.C. and plan to meet directly at the Spy Museum, or they may come back to College Park after exploring and catch the provided transportation to the museum anytime between 6:15 p.m. - 8:00 p.m. Attendees may also choose to stay longer in the D.C. area following the Spy Museum event and not utilize the IMPS transportation back to the College Park area. For more details on using the METRO to get to and from D.C., [click here](#). To explore things to do in D.C., [click here](#).
Bus Transportation provided:
Bus transportation will be provided by the Psychometric Society and available for all attendees to use to and/or from The Spy Museum in Washington, D.C. Bus pick-up and drop-off will take place at the College Park Marriott Hotel & Conference Center (3501 University Blvd E, Hyattsville, MD 20783). Buses will be available at the Marriott on a loop for attendees to take transportation anytime to the Spy Museum between 6:15 p.m. - 8:00 p.m. Return buses will then be available at the Spy Museum on a loop between 8:00 p.m. - 10:30 p.m. back to the Marriott. The last bus will depart from the Spy Museum at 10:30 p.m.

Bus Transportation Tip:
If you would like to be paired with your friends to travel to and from D.C., please be sure to line up together in order to be placed on the same bus.

Schedule Overview for the Evening:
6:15 p.m. - 8:00 p.m. | Buses available at the College Park Marriott on a loop to transport attendees to The Spy Museum, in Washington, D.C.

The Society has coordinated with the Spy Museum Gift Shop, which will stay open until 8:00 p.m. for IMPS attendee private access. Consider stopping by the gift shop to check out all the great souvenirs. (Note: Attendees may be required to show their IMPS badge after 7:00 p.m. to gain private access to the shop, as it closes to the public at 7:00 p.m. The gift shop is located in the main lobby area of the Spy Museum.)

7:00 p.m. - 10:00 p.m. | Closing Reception Excursion Event. Attendees will receive admission to explore the Spy Museum and interact on the 4th and 5th floors of the exhibits, plus take in great views on the rooftop. In addition, a hosted appetizer buffet and a cash bar will be provided for attendees and guests to enjoy.

8:00 p.m. - 10:30 p.m. | Buses available on a loop at the Spy Museum to transport attendees back to the College Park Marriott.

Important Note:
The Spy Museum doors do not open until 7:00 p.m. for IMPS attendee access. (Traffic is hard to predict in the Washington, D.C., area and we apologize in advance if any of the IMPS buses arrive early.) Attendees are welcome to stay on the bus, go shopping in the Museum gift shop, or walk around outside of the Spy Museum to take pictures and visit with other fellow attendees until the event start time.
Conference Venue
IMPS will take place at the Adele H. Stamp Student Union, commonly referred to as “Stamp” on the campus of the University of Maryland, College Park (Maryland, USA). For an interactive UMD map, click here: maps.umd.edu/map.

The educational sessions will be located at the Adele H. Stamp Student Union (3972 Campus Drive) on the University of Maryland campus. The building is on the right of the intersection between Campus Drive and Union Lane.

Important Note: Information about vehicle and pedestrian detours during IMPS can be found here.

Special Accommodations
If you require special accommodations and/or have special dietary needs during the meeting, please visit the staff located at the Registration Desk in the Stamps Union building (Grand Ballroom Lounge, first floor.) Once inside the building, the two floors with educational sessions can be accessed by elevator or stairs.

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.

Local Area Emergency Information
Hospital
umms.org/health-services/urgent-care/locations

College Park Medical Center
4701 Melbourne Place
College Park, MD 20740
Phone: (301) 450-5631
Appointments: expresshealthcaredc.com

Pharmacy
CVS Pharmacy
7501 Baltimore Avenue Suite 1
College Park, MD 20740
Phone: (301) 955-1922

Dentist
College Park Dental
7305 Baltimore Avenue #204
College Park, MD 20740
Phone: (301) 238-7083

ATMs Campus Locations (Automated Teller Machine)
Stamp Union (Exterior)
Open 24 Hours
3972 Campus Drive
College Park, MD 20742

Lefrak Hall
Open 24 Hours
7251 Preinkert Drive
College Park, MD, 20742

Ellicott Hall
Open 24 Hours
4052 Stadium Drive
College Park, MD, 20742

IMPS Registration and Information Desk
The IMPS Registration and Information Desk is located in the Stamps Union Building at the University of Maryland, College Park in the Grand Ballroom Lounge (First Floor) throughout the Annual Meeting, July 24 to July 28. A Psychometric Society staff member 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.
General Conference Information

Hours of Operation:

**Monday, July 24**
8:00 a.m. - 11:00 a.m. & 2:30 p.m. - 4:30 p.m.
(Short Course Workshops Day; however, the desk is available to all meeting attendees.)

**Tuesday, July 25**
8:00 a.m.- 4:30 p.m.

**Wednesday, July 26**
8:30 a.m.-4:30 p.m.

**Thursday, July 27**
8:30 a.m. - 4:30 p.m.

**Friday, July 28**
8:30 a.m. - 1:00 p.m.

**Name Badge Policy**
Meeting name badges are required for entrance to all conference sessions and events.

**Thumb Drives containing the IMPS 2023 Program and Abstract Book**
The Society has placed the IMPS 2023 program book and abstract book on a 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 meeting page or the meeting app also host the IMPS 2023 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, which tend to be very humid. July is typically the warmest month of the year, with an average high temperature of 33°C or 92°F and a low of 18°C or 64°F. It may rain, but typically rains are less frequent in the summer. We recommend dressing appropriately for the weather, but in layers as the Stamps Union building is air conditioned.

**Meeting Refreshment Breaks, Attendee Lunch Breaks, and Hosted IMPS Events**
During the conference week there will be morning and afternoon refreshments (i.e., beverage service) during the session breaks. The break area will be part of the Exhibit & Sponsor area that will be located in the Charles C. Carroll Room (Second Floor) in the Stamps Union. Water stations will also be set up in this same space daily between 8:30 a.m. - 4:30 p.m. To learn more about this year’s exhibit hall, go to page 27. Lunch will not be provided by the Society; rather, attendees will be on their own for lunch. Check out the mobile app for a list of restaurants near the University area or click here to view [Dine@ UMD](#).

Please refer to the Program schedule on pages 15-26 for the timeline of daily coffee breaks, lunch breaks, and hosted IMPS events.
IMPS 2023 Mobile APP
The Psychometric Society has a mobile app for IMPS 2023. Please download the “EXORDO” app using App Store or Google Play. Once you open the app, you will need to search for the event by entering “IMPS2023.” Tap on the event and then “Join” for access.

Complimentary internet will be available at the University; 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.

University Internet (Wi-Fi Access)
To access UMD’s guest Wi-Fi during the IMPS, please use the following instructions. Please note that the usernames and passwords will change daily.

Guest Wi-Fi Instructions:
1. Connect your device to the “UMD-Guest” network.
2. Open a web browser.
3. If the browser doesn’t automatically direct you to the login screen then go to the umd.edu website. This will cause the login screen to appear.
4. Type in the username and password for the current date (listed below) and click “login.” Notice that all usernames and passwords are lowercase.
5. NOTE: If you receive the “Success” pop-up but don’t have internet access try to turn your Wi-Fi off and then back on.

Day 1 – Tuesday, July 25
Username: imps2023-1
Password: eakswoorivas

Day 2 – Tuesday, July 25
Username: imps2023-2
Password: lyncaederetr

Day 3 – Wednesday, July 26
Username: imps2023-3
Password: pylogeoreptc

Day 4 - Thursday, July 27
Username: imps2023-4
Password: rnpaurulipur

Day 5 – Friday, July 28
Username: imps2023-5
Password: psiletuninku
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.

2023 Society President & Organizing Committee Chair:
Jeff Douglas, University of Illinois Urbana-Champaign

IMPS 2023 Local Committee
Hong Jiao, University of Maryland (Conference Host Site)
Qiwei (Britt) He, Educational Testing Service
Frank Rijmen, Cambium Assessment

IMPS 2023 Program Committee:
Jeff Douglas, Chair, University of Illinois
Carolyn Anderson, University of Illinois
Yunxiao Chen, London School of Economics and Political Science
Chia-Yi Chiu, University of Minnesota
Steven Culpepper, University of Illinois
Jimmy De La Torre, The University of Hong Kong
Hyeon-Ah Kang, University of Texas-Austin
Kentaro Hayashi, University of Hawaii-Manoa
Qiwei (Britt) He, Educational Testing Service
Hong Jiao, University of Maryland
David Kaplan, University of Wisconsin
Justin Kern, University of Illinois
Wenchao Ma, University of Alabama
Irini Moustaki, London School of Economics and Political Science
Frank Rijmen, Cambium Assessment
Steffi Pohl, Freie Universitat Berlin
Andries van der Ark, University of Amsterdam
Shiyu Wang, University of Georgia
Susu Zhang, University of Illinois

THANK YOU
A very special extra thank you goes to our local organizing committee members Hong Jiao, Qiwei (Britt) He, Frank Rijmen, and the UMD Volunteers for all their hard work this year!

Many thanks also to the University of Maryland, the College of Education at UMD, the Department of Human Development and Quantitative Methodology, and the Maryland Assessment Research Center for their support of IMPS 2023.

We sincerely hope you have a wonderful visit to College Park, Maryland (Washington, D.C.). Thank you for joining us at IMPS 2023!

Psychometric Society
For more information about the Psychometric Society or membership, contact the Psychometric Society National Office:

Psychometric Society
2424 American Lane
Madison, WI 53704
Telephone: 608-268-4712
Fax: 608-333-0310
Email: info@psychometricsociety.org
Monday - July 24

**Short Course #1:**
From Collecting Log-data to Analyzing Process Indicators with logLime R package
Speaker: Dr. Tomasz Zoltak

- 9:00 - 10:30: Short Course
- 10:30 - 10:50: Coffee Break (Location: Charles C. Carroll)
- 10:50 - 12:00: Short Course
- 12:00 - 1:30: Lunch Break (on your own)
- 1:30 - 3:00: Short Course
- 3:00 - 3:20: Coffee Break (Location: Charles C. Carroll)
- 3:20 - 5:00: Short Course

**Short Course #2:**
Computerized Adaptive Testing and Multistage Testing with R
Speakers: Dr. Alina Von Davier and Dr. Duanli Yan

- 9:00 - 10:30: Short Course
- 10:30 - 10:50: Coffee Break (Location: Charles C. Carroll)
- 10:50 - 12:00: Short Course
- 12:00 - 1:30: Lunch Break (on your own)
- 1:30 - 3:00: Short Course
- 3:00 - 3:20: Coffee Break (Location: Charles C. Carroll)
- 3:20 - 5:00: Short Course

**Off-site Location:** The Hotel at the University of Maryland | 7777 Baltimore Ave, College Park, MD 20740; Room: Top of 7’s Ballroom (Rooftop)

**Graduate Student Mixer Reception**
This event is exclusively for graduate students and will be hosted by the Psychometric Society.
Tuesday • July 25

Colony Ballroom (Second Floor)

Welcome

Colony Ballroom (Second Floor)

Invited Talk: Dr. Ed Merkle
Progress and Pitfalls in Bayesian Latent Variable Models
Chair: Prof. Steven Culpepper

Atrium (First Floor)

Invited Talk: Dr. Kim De Roover
Finding clusterwise measurement invariance with mixture multigroup factor analysis
Chair: Dr. Jeff Douglas

Charles C. Carroll (Second Floor)

Coffee Break

Colony Ballroom (Second Floor)

Symposium: New Science Standards, New(ish) Psychometrics
Chair: Dr. Frank Rijmen

New science standards, new(ish) psychometrics
Dr. Frank Rijmen

Test design and calibration model for three-dimensional science assessments
Dr. Frank Rijmen

Assessing item fit for the Rasch testlet model
Dr. Dandan Liao

Evaluation of person fit
Dr. Zhongjian Lin

Item drift for item clusters
Dr. Mengyao Cui

The Assertion Mapping Procedure for setting performance standards
Dr. Yi-Fang Wu

Session: Diagnostic Classification Models
Chair: Prof. Jeff Douglas

An ordinal diagnostic model for inferring item-level and category-specific structure
Mr. Auburn Jimenez

Regularization in Cognitive Diagnosis Models
Dr. Yuan Ge

Going Deep in Diagnostic Modeling: Deep Cognitive Diagnostic Models (DeepCDMs)
Dr. Yuqi Gu

Identifying Cognitive Diagnostic Models for Continuous or Count Responses
Mr. Seunghyun Lee

Atrium (First Floor)

Session: Longitudinal Data Analysis
Chair: Dr. Charlie Iaconangelo

A Two-Step Robust Estimation Approach for Inferring Within-Person Relations in Longitudinal Design
Dr. Satoshi Usami

Detecting change in dynamics through change-point analysis and time-varying parameters
Dr. Meng Chen

Repeated measurement analysis for non-linear data in small samples
Dr. Sunmee Kim

Circumplex models with behavioral time series
Ms. Dayoung Lee

Dynamic model with interactions: insight from the predator-prey model
Ms. Minglan Li

Prince George’s Room (First Floor)

Session: Response Times
Chair: Dr. Hyeon-Ah Kang

Detecting local item dependency associated with response latency: A test security application
Dr. Joseph Gratchowalski

Exploring asymmetric relationships between response time and latent traits in noncognitive measurement
Ms. Tongtong Zou

Fitting a drift-diffusion IRT model to complex cognitive response times
Mr. Ritesh Malaiya

Item response theory modeling with response times: Some issues
Prof. Susan Embretson

Detecting aberrant behaviors of test-takers with Bayesian hierarchical response times models
Dr. Burhanettin Ozdemir

Benjamin Banneker (Second Floor)

Session: Measurement Applications
Chair: Dr. Eric Schuler

Longitudinal measurement invariance of Christian scales
Mr. Hiroki Matsuo

A Study on the Influence of Family Moral Education on College Students’ Moral Outlook
Ms. Qile Liu

Assessing the consistency of affective responses
Mr. Niels Vanhasbroek

Margaret Brent (Second Floor)

Session: Causal Inference
Chair: Prof. Carolyn Anderson

Causal effect sensitivity across sets of competing DAGs
Mr. Ronald Flores

Bounding Causal Effects of Pretest-Posttest Designs with a Control Group
Mr. Muwon Kwon

Investigating causal relationships between longitudinal treatment patterns and heterogeneous effects
Ms. Hanna Kim

A practical guide on selecting propensity score matching methods
Ms. Lizzy Wu

Moderated treatment effects in nonrandomized partially nested designs
Dr. Xiao Liu

Juan Ramon Jimenez (Second Floor)

Session: Item Response Theory
Chair: Dr. Justin Kern

Modeling variance and skewness as functions of latent factors in Latent Variable Models with mixed items
Mr. Camilo Cardenas

Joint modeling of action sequences and action times in problem-solving tasks
Dr. Peida Zhan

Effect of testlets’ difficulty distribution on estimation accuracy and reliability improvement
Dr. Kaili Liang

Item response modeling of clinical instruments with filter questions
Dr. Brooke Magnus

Assessing Dimensionality of Sparse Item Response Data: Comparison of Different Data Imputation Methods
Dr. Yong Luo

Thurgood Marshall (Second Floor)

Session: Measurement Applications
Chair: Dr. Eric Schuler

Longitudinal measurement invariance of Christian scales
Mr. Hiroki Matsuo

A Study on the Influence of Family Moral Education on College Students’ Moral Outlook
Ms. Qile Liu

Assessing the consistency of affective responses
Mr. Niels Vanhasbroek

All Times Listed in Eastern Time
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<th>Event</th>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>TUESDAY CONTINUED  Attendee Lunch (On Your Own)  Career Award for Lifetime Achievement Speaker: Prof. Klaas Sijtsma  Who Cares about Psychometrics?  Chair: Prof. Jeff Douglas</td>
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<tr>
<td>1:00 p.m. - 2:00 p.m.</td>
<td>Colony Ballroom (Second Floor)  Group Photo (2:00 - 2:15) All attendees welcome!  S: Computerized Adaptive Testing Chair: Dr. Duanli Yan  Developing CD-CAT algorithms for college gate-way STEM courses  Ms. Xueyu Tang  A Dynamic Balancing Attribute Coverage Method for CD-CAT  Dr. Cha-Ling Hsu  Designing Variable-Length Multidimensional Multistage Computerized Adaptive Testing  Dr. Yi-Ling Wu  A New Approach to Evaluating Item Parameter Drift in Computerized Adaptive Testing  Mr. Hwanggyu Lim  Reducing Measurement Errors for PISA's Computerized Multistage Testing by Using an On-The-Fly Multistage Design that Incorporates Response Time  Prof. Hua Hua Chang</td>
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<td>2:00 p.m. - 2:30 p.m.</td>
<td>Current Ballroom (Second Floor)  Session: Item Response Theory Chair: Dr. Lei Wan  Omitted response treatment using a modified Laplace smoothing for approximate Bayesian inference in Item Response Theory  Dr. Matthias von Davier  Asymptotic Standard Errors of Model-based Oral Reading Fluency Score Estimating  Dr. Xin Qiao  Factors impacting high dimensional graded response model calibration  Mr. Kenneth McClure  Asymptotic standard errors of equating coefficients for non-parametric ability distribution  Dr. Ikko Kawahashi  IRTfree models of co-occurring dominance and ideal point response processes  Ms. Viola Merhof</td>
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<tr>
<td>2:30 p.m. - 3:45 p.m.</td>
<td>Margaret Brent (Second Floor)  Session: Item Response Theory Chair: Dr. Lei Wan  Omitted response treatment using a modified Laplace smoothing for approximate Bayesian inference in Item Response Theory  Dr. Matthias von Davier  Asymptotic Standard Errors of Model-based Oral Reading Fluency Score Estimating  Dr. Xin Qiao  Factors impacting high dimensional graded response model calibration  Mr. Kenneth McClure  Asymptotic standard errors of equating coefficients for non-parametric ability distribution  Dr. Ikko Kawahashi  IRTfree models of co-occurring dominance and ideal point response processes  Ms. Viola Merhof</td>
</tr>
<tr>
<td>3:45 p.m. - 5:45 p.m.</td>
<td>Juan Ramon Jimenez (Second Floor)  Session: Mixed-Effects and Multilevel Models  Chair: Dr. Satoshi Usami  Bayesian Stacking in Multilevel Models  Ms. Mingya Huang  On Generating Plausible Values for Multilevel Modeling in Large-Scale Assessments  Dr. Xiayong Zheng  Efficient additive Gaussian process models for large-scale balanced multi-level data  Ms. Sahoko Ishida  Evaluation of factors impacting predictor importance results in multilevel models  Ms. Soonhwa Paek  Best practices for centering categorical predictors in multilevel models  Ms. Haley Yaremych</td>
</tr>
<tr>
<td>5:45 p.m. - 7:45 p.m.</td>
<td>Charles C. Carroll (Second Floor)  Coffee Break (2:15 - 2:30)  Prince George's Room (First Floor)  Session: Diagnostic Classification Models Chair: Dr. Dandan Liao  A novel framework of diagnostic classification model for multiple-choice items and a simulation study  Mr. Kentarou Fukushima  Restricted HMM for latent class attribute transitions  Mr. Theren Williams  Higher order personalized slip tendency model for cognitive diagnosis  Ms. Yuting Liu  Q-matrix identification using text classification: TF-IDF and word embedding  Mr. Yuxiao Zhang</td>
</tr>
<tr>
<td>7:45 p.m. - 9:45 p.m.</td>
<td>Benjamin Baneker (Second Floor)  Session: Diagnostic Classification Models Chair: Dr. Dandan Liao  A novel framework of diagnostic classification model for multiple-choice items and a simulation study  Mr. Kentarou Fukushima  Restricted HMM for latent class attribute transitions  Mr. Theren Williams  Higher order personalized slip tendency model for cognitive diagnosis  Ms. Yuting Liu  Q-matrix identification using text classification: TF-IDF and word embedding  Mr. Yuxiao Zhang</td>
</tr>
<tr>
<td>9:45 p.m. - 11:45 p.m.</td>
<td>Thurgood Marshall (Second Floor)  Session: Measurement Applications Chair: Dr. Daniel Edi  Validation of the household food security survey module using Confirmatory Factor Analysis and Rasch modeling  Ms. Jing Li  Examining the Measurement Invariance of the Chinese Short Grit Scale  Ms. Roi Chakraborty  A shortened Positive and Negative Symptom Scale (PANSS): harmonizing classical item response theory with the perspectives from network approach  Dr. Jinyuan Liu  The impact of teachers’ instructional methods on the reading achievement of resilient students  Ms. Qile Liu  Assessing raters rating quality under holistic and analytic scoring schemes in writing assessment: An empirical example  Dr. Diego Carrasco</td>
</tr>
</tbody>
</table>
TUESDAY CONTINUED
3:50 p.m. - 4:50 p.m.

Colony Ballroom (Second Floor)
Dissertation Award Speaker: Dr. Inhan Kang
A trilogy of modeling conditional dependence in and between responses and response times
Chair: Prof. Jeff Douglas

Welcome Reception and Poster Session
Light hors d’oeuvres and a cash bar reception will be offered for all attendees!
Presenters will be standing by their posters from 6:00 p.m. - 7:30 p.m. in a casual and fun setting to include hors d’oeuvres and a cocktail reception.
Click here to view the poster list.

5:30 p.m. - 7:30 p.m.

Off-site Location: The Hotel at the University of Maryland | 7777 Baltimore Ave, College Park, MD 20740; Room: Calvert Ballroom Salon A&B
### Wednesday • July 26

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session</th>
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</table>
| 9:00 a.m.     | Atrium (First Floor)        | Symposium: Psychometrics at College Board  
Chair: Dr. Luz Bay  
**Moderator:** Dr. Luz Bay  
**Panelists:**  
Dr. Jansen (Cassie) Chen  
Dr. Weiwei Cui  
Dr. Yuan Ge  
Dr. Joseph Grochowalski  
Dr. Amy Hendrickson  
Dr. YounKoung Kim  
Dr. Tim Moses  
Dr. Lei Wan  
Dr. Xiuyuan Zhang  
**A Latent Hidden Markov Model for Process Data**  
Dr. Xueying Tang  
**Leveraging process data and variable selection for TIMSS achievement estimation**  
Ms. Dihao Leng  
**Supporting the process evaluation of assessing others' skills: A content analysis using deep learning**  
Dr. Xue Wang  
**Process Data Enhanced Diagnostic Measurement using Topic Modeling on Constructed Responses**  
Ms. Constanza Mardones-Segovia  
**Diagnosing skills and misconceptions with Bayesian Networks applied to diagnostic MC tests**  
Prof. James Corter  
**A sparse latent class model incorporating response time**  
Prof. Jeff Douglas  
**Testing the Whole Testlet: An Application of the Mantel-Hanszel Statistic**  
Prof. Youn Seon Lim  
**Identifiability of Estimated Q-Matrices: Implications for Estimation Algorithms**  
Ms. Hyunjoo Kim  
**DIF detection in a response time measure: an LRT method**  
Dr. Anne Thissen-Roe  
**Empirical evaluations of DIF detection methods**  
Dr. Yevgeniy Plösken  
**Asymmetry-induced model misspecification and the observation of cross-national DIF**  
Ms. Qi (Helen) Huang  
**Unveiling gender bias in SET: a text mining approach**  
Dr. Wen Qu  
**Bayesian location-scale model for assessing reliability differences with ordinal ratings**  
Mr. František Bartoš  
**Further examination of fully Bayesian information criteria for mixture IRT models**  
Dr. Rehab AlHakmani  
**Bayesian nonparametric latent class analysis for different item types**  
Mr. Meng Qiu  
**Bayesian Approaches to Quantifying the Practical Impact of Measurement Non-invariance: Extending dMACS**  
Mr. Conor Lacey  
**How does prior distribution affect model fit indices of BSEM**  
Ms. Yonglin Feng  

### Coffee Break

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session</th>
</tr>
</thead>
</table>
| 10:30 a.m.    | Colony Ballroom (Second Floor)  
Invited Speaker: Dr. Li Cai  
*Tinkering with parametric item response theory*  
Chair: Dr. Edgar Merkle  
**Atrium (First Floor)  
Invited Speaker: Dr. Nidhi Kohli  
*Piecewise Random-Effects Models for Segmented Longitudinal Trends*  
Chair: Prof. Irini Moustaki|
WEDNESDAY CONTINUED
11:20 a.m. - 12:05 p.m.

Colony Ballroom (Second Floor)
Invited Speaker: Dr. Chun Wang
VEMIRT: A Family of Variational Methods for Multi-dimensional IRT Applications
Chair: Prof. David Kaplan

State of the Art Speaker: Dr. Qiwei (Britt) He
Sequence Mining Methods for Process Data Exploration
Chair: Prof. Carolyn Anderson

Attendee Lunch (On Your Own)
Refer to the Where to Dine @UMD Map

12:05 p.m. - 1:35 p.m.
Lunch Break

Colony Ballroom (Second Floor)
Keynote Speaker: Prof. Steven Culpepper
Refining Hidden Markov Models for Diagnostic Research
Chair: Prof. Jeff Douglas

2:40 p.m. - 3:55 p.m.

Symposium: Response time modeling: Inference, evaluation, and new modeling approaches
Chair: Dr. Hyeon-Ah Kang
Response time modeling: Inference, evaluation, and new modeling approaches
Dr. Hyeon-Ah Kang
Deep Learning Approaches for Factor Analysis of Responses and Response Times
Dr. Rudolf Debelak
Assessing the fit of response time factor models by generalized residuals
Ms. Youjin Jin
Gaussian graphical model for evaluating local item dependency in response times
Dr. Hyeon-Ah Kang
Modeling omissions in tests as dependent on previous test behavior
Mr. Augustin Mutak

Margaret Brent (Second Floor)
Session: Classification and Clustering
Chair: Dr. Gabriel Wallin
Clusterwise Joint-ICA for studying heterogeneity between subjects in multi-modal components
Dr. Tom Wildergans
Bootstrap Standard Errors for LDA, NCA, and Transformation-Matrix Methods with Multiple Solutions
Mr. Yikai Lu
MixML-SEM: A parsimonious approach for finding clusters of groups with equivalent structural relations in presence of measurement non-invariance
Ms. Hongwei Zhao
Model-agnostic unsupervised detection of bots in Likert-type survey data
Mr. Michael John Ilagan
Power analysis for correspondence measures of replication success
Mr. Patrick Sheehan

Juan Ramon Jimenez (Second Floor)
Session: Test Theory
Chair: Prof. Seock-Ho Kim
Contributions of Equating Error and Measurement Error to Score Variability
Dr. Dongmei Li
Test item instructional sensitivity indices incorporating instructional content and quality
Prof. Anne Traynor
Latent equating: the case of the NEAT design
Dr. Inés Varas
A comparison of equating method to detect longitudinal trends
Dr. Haruhiko Mitsunaga
Self-normalized, score-based tests of models with dependent observations
Dr. Ting Wang

Thurgood Marshall (Second Floor)
Session: Measurement Applications
Chair: Prof. Youn Seon Lim
Decision-making when representing survey data: Is one dimension enough?
Ms. Linda Galib
Global validity of assessments: Location and currency effects
Ms. Ambar Kleinbort
Are we playing the same game? Translating fairness content
Ms. Amy Li
Development and comparison of regular and reversed items measuring the need for intimacy in the workplace
Mr. Seito Nakamura
Characterizing Individual Differences in Medical Certification Testing
Ms. Haeju Lee
### Colony Ballroom (Second Floor)

**Session: Emerging Trends in Psychometrics: Opportunities and Challenges**
**Chair:** Dr. Kadriye Ercikan

- Emerging Trends in Psychometrics: Opportunities and Challenges  
  Dr. Kadriye Ercikan
- Statistical and psychometric models for culturally responsive assessments  
  Dr. Sandip Sinharay
- Predicting the psychometric properties of automatically generated items  
  Dr. Jiyun Zu
- Assessing bias in AI-powered scoring models and developing strategies for reducing the risk  
  Dr. Matthew Johnson
- Assessing collaborative problem solving: psychometric challenges and strategies  
  Dr. Jiangang Hao

### Atrium (First Floor)

**Session: Machine Learning**
**Chair:** Dr. Gongjun Xu

- Reconceptualizing idiographic and nomothetic relations in dynamic models powered by machine learning methods: Implications on causality inference  
  Dr. Sy-Min Chow
- Multilevel causal machine learning methods for CATE with confidence bands  
  Prof. Jee-Seon Kim
- MxML: exploring the relationship between measurement and machine learning in recent history  
  Prof. Yi Zheng
- Data preprocessing techniques using machine learning algorithms in large-scale assessment  
  Mrs. Mingying Zheng
- A mixed effects model in machine learning  
  Dr. Pascal Kilian

### Prince George's Room (First Floor)

**Session: Growth Mixture Models and Longitudinal Analysis**
**Chair:** Prof. Irini Moustaki

- Growth mixture model classification is inaccurate under realistic separation levels  
  Dr. Sonja Winter
- Exploring the effect of item calibration and scoring methods on growth mixture model results  
  Dr. James Soland
- Interpretable machine learning vs. linear mixed models for longitudinal data  
  Ms. Young Won Cho
- An investigation of missing data analytical methods in longitudinal research: traditional and machine learning approaches  
  Ms. Dandan Tang
- A two-stage approach to a latent variable mixed-effects location scale model  
  Prof. Shelley Blozis

### Benjamin Banneker (Second Floor)

**Session: Bayesian IRT**
**Chair:** Dr. Yang Liu

- A Bayesian hierarchical item response theory model for estimating attributes of regular exams and students’ knowledge levels  
  Mr. Jiatong Li
- Sparse Bayesian joint modal estimation for item factor analysis  
  Mr. Keiichiro Hijikata
- WAIC and PSIS-LOO for Bayesian diagnostic classification model selection  
  Ms. Ae Kyong Jung
- A comparative study of bayesian samplers in MCMC estimation for joint modeling of response, response time, and item revisit count  
  Ms. Jinglei Ren

### Margaret Brent (Second Floor)

**Session: Differential Item Functioning**
**Chair:** Prof. Daniel Bolt

- The effect of the projective IRT model on DIF detection  
  Dr. Ye Ma
- Comparing frequentist and Bayesian approaches for detecting differential item functioning  
  Dr. Eric Schuler
- The deconstruction of measurement invariance (and DIF)  
  Dr. Safrin Youfi
- An examination of the interaction between reliability and DIF detection  
  Dr. Terry Ackerman
- Pervasive DIF and DIF detection bias  
  Dr. Paul De Bock

### Juan Ramon Jimenez (Second Floor)

**Session: Structural Equation Models**
**Chair:** Dr. Xinya Liang

- Prediction-based selection of individual predictors in generalized structured component analysis  
  Ms. Bellette Lu
- Examining SEM trees for investigating measurement invariance concerning multiple violators  
  Dr. Yuanfang Liu
- Accommodating multiple time metrics using the latent change score model  
  Dr. Sarfaraz Serang
- Two-stage asymptotically distribution free method in structural equation modeling  
  Mr. You-Lin Chen
- An empirical study of testing nonlinear latent relationships  
  Prof. Fan Yang-Wallentin

### Thurgood Marshall (Second Floor)

**Session: Measurement Applications**
**Chair:** Dr. Charlie Iaconangelo

- Psychometric perspectives on modeling and measuring synergistic risk factors  
  Dr. Wilco Emons
- Improving preference analysis: Joint models for ordinal and cardinal data  
  Mr. Michael Paarco
- Investigating interactive patterns in simulation-based inquiry tasks using sequential analysis  
  Ms. Shuang Wang
- Prediction of cognitive impairment using machine learning models  
  Dr. Lihua Yao
- Generating reading assessment passages using a large language model  
  Dr. Ummugul Bezirhan
**Thursday • July 27**

**Colony Ballroom (Second Floor)**
- **Symposium: Innovative Methods for Variable Selection in Different Scenarios of Model Building**
  - Chair: Prof. Hairong Song
  - Innovative Methods for Variable Selection in Different Scenarios of Model Building
    - Prof. Hairong Song
  - A New Algorithm for Variable Selection in Building GLMMs
    - Dr. Yutian Thompson
  - Investigating variable selection techniques under missing data: a simulation study
    - Ms. Catherine Bain
  - Clustering Intensive Longitudinal Data Using VAR Models with Lasso Estimator
    - Ms. Yaqi Li

**Prince George’s Room (First Floor)**
- **Session: Measurement Applications**
  - Chair: Dr. Nidhi Kohli
  - Using Gaussian Process Ordinal Regression with Mixture Errors to Understand Student Well-being
    - Mrs. Elizabeth Gibbs
  - Psychometric properties of the Dual-Range Slider response format
    - Mr. Matthias Kloft
  - Mapping of the data science skillset of Dutch master study graduates
    - Dr. Zsuzsa Bakk
  - Research on Adaptive Learning System Based on Learners’ Academic Emotions
    - Ms. Chang Nie

**Benjamin Banneker (Second Floor)**
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  - A New Algorithm for Variable Selection in Building GLMMs
  - Investigating variable selection techniques under missing data: a simulation study
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  - Ms. Chang Nie

**Charles C. Carroll (Second Floor)**
- **Coffee Break**

**Colony Ballroom (Second Floor)**
- **Keynote Speaker: Prof. Hong Jiao**
  - Integrating Item Product and Process Data to Enhance the Theory and Practices of Psychometric Analyses in Digital Assessments
    - Chair: Prof. Jeff Douglas
THURSDAY CONTINUED
11:30 a.m. - 1:45 p.m.
Attendee Lunch (On Your Own)
Lunch Break
Refer to the Where to Dine @UMD Map

Colony Ballroom (Second Floor)
Symposium: Capturing sample heterogeneity in dynamic psychological processes
Chair: Ms. Ji Jody Zhou
Capturing sample heterogeneity in dynamic psychological processes
Ms. Ji Jody Zhou
A Bayesian mixture multilevel vector autoregressive model
Ms. Xingyao Xiao
Identifying and Explaining Sample Heterogeneity in Dynamic Psychological Processes Using mVARTree
Ms. Ji Jody Zhou
Impact of Temporal Order Selection on VAR-based Clustering of Intensive Longitudinal Data
Ms. Yaqi Li
Clustering analysis of time series of affect in dyadic interactions
Mr. Samuel Aragones
Implications of Clustering Continuous-Time Processes Using Discrete-Time Methods
Mr. Jonathan Park

1:45 p.m. - 3:00 p.m.
Session: Categorical Data Analysis
Chair: Prof. Susu Zhang
Nominal category models and the independence of irrelevant alternatives assumption
Mr. Weicong Lyu
Examining different approaches to treating zero-frequency cells in polychoric correlation estimation
Ms. Jeongwon Choi
Using Extreme Threshold Constraints for Partially-Known Latent Class Models
Dr. Paul Scott
Parallel analysis with a new decision rule
Mr. Ahmet Guven
Model size effects on measurement invariance testing with ordinal indicators
Ms. Nana Anima Asamoah

Atrium (First Floor)
Session: Generative AI
Chair: Dr. Qiwei He
Assessment Engineering Meets Generative AI: Unlocking New Opportunities for Digital Assessment
Prof. Jaehwa Choi
Generative Distractor Modeling with Generative AI
Mrs. Sunyoung Lee
Features for detecting essays produced by generative AI
Prof. Hong Jiao
Reassess the item response theory simulation with generative adversarial networks
Dr. Jiawei Xiong
Automatic generation of cognitive test items using large language models
Mr. Antonio Laverghetta, Jr.

Prince George’s Room (First Floor)
Session: Longitudinal and Dynamic Models
Chair: Prof. Zhenggu Li
State Space Models for Ordinal Measurements: Towards a Generalized Dynamic IRT
Dr. Teague Henry
Power Considerations in Dynamic Structural Equation Models
Mr. Hyunjeong Oh
Dynamic Structural Equation Modeling with Missing Data
Ms. Yuan Fang
Challenges for psychometric evaluations in intensive longitudinal data
Prof. Holger Brandt
Zero inflation in longitudinal data: why is it important and how should we deal with it?
Ms. Sijing (SJ) Shao

Benjamin Banneker (Second Floor)
Session: Item Response Theory
Chair: Dr. Hyeon-Ah Kang
The assessment collaboration skill using multilevel multidimensional partial credit model
Ms. Guiyu Li
Computational aspects of modelling item responses
Dr. Patricia Martinkova
Fisher Information-Based Difficulty and Discrimination Measures in Binary IRT
Mr. Peter Johnson
A mixture IRTree approach to deal with heterogeneity in response strategies
Mr. Onur Errem Can Alagöz
Model averaging of (nonlinearly related) item response models
Dr. Leah Feuerstahler

3:05 p.m. - 3:50 p.m.
Session: Diagnostic Classification Models
Chair: Prof. Chia-Yi Chiu
Decomposition of DIC for cognitive diagnosis model
Ms. Zhiduo Chen
Investigating the effect of Q-matrix misspecification on estimating cognitive diagnosis models for small sample sizes
Ms. Bea Margarita Ladaga
Improving Cognitive Diagnosis in Small Samples with Catalytic Priors
Mr. David Arthur
Identifiability of Cognitive Diagnosis Models with Polytomous Responses
Ms. Mengqi Lin
Partially Confirmatory Q Learning for Distinguishable Attribute Importance in the Compensatory CDMs
Ms. Yuting Liu

Colony Ballroom (Second Floor)
Early Career Award Speaker: Prof. Gongjun Xu
Identifiability of Cognitive Diagnosis Models
Chair: Prof. Jeff Douglas

Lunch Break
Refer to the Where to Dine @UMD Map

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Session: Generative AI
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Dr. Jiawei Xiong
Automatic generation of cognitive test items using large language models
Mr. Antonio Laverghetta, Jr.
CHARLES C. CARROLL (SECOND FLOOR)

COFFEE BREAK

THURSDAY CONTINUED
3:50 p.m. - 4:10 p.m.
Charles C. Carroll (Second Floor)

Colony Ballroom (Second Floor)
Symposium: Digital Transformation-Virtual Standard Setting
Chair: Dr. Xinhui Xiong
Digital Transformation-Virtual Standard Setting
Dr. Xinhui Xiong
Web-based Standard Setting for a Credit-By-Examination Program
Dr. Weiling Deng
A hybrid virtual standard setting implementation for statewide assessments
Dr. Jiawei Xiong
A video-based implementation of the Bookmark method for a college placement testing program
Dr. Luz Bay

Atrium (First Floor)
Session: Item Response Theory
Chair: Dr. Matthew Johnson
Implementing Dynamic IRT Models to Account for Response Strategy Variability
Dr. Clifford Hauenstein
Comparing Ability Parameters in Performance Factor Analysis and Item Response Theory using Kullback-Leibler Divergence
Dr. Amineezeh Mehrabi
Revisiting the 1PL-AG item response model: Bayesian estimation and application
Dr. Jorge Bazán
Extreme and Midpoint Response Styles: Two Sides of the Same Coin?
Mr. Martijn Schoenmakers

Prince George's Room (First Floor)
Session: Network Analysis
Chair: Prof. Jeff Douglas
Incorporating level-specific covariates in structural equation models of social-network data
Ms. Aditi Manoj Bhangale
Social network construct measurement error: An IRT-based latent space model
Ms. Yishan Ding
Network approaches to clinical assessment data: LSIRM vs. network psychometrics
Ms. Ludovica De Carolis

Benjamin Banneker (Second Floor)
Session: Factor Analysis
Chair: Dr. Chunhua Cao
Structured factor analysis: A data matrix-based alternative approach to structural equation modeling
Mr. Gyeongcheol Cho
Comparison between Bayesian and Frequentist Regularization in Factor Analysis
Dr. Xinya Liang
InterModel Vigorish for Model Comparison in CFA with Binary Outcomes
Ms. Lijin Zhang
Controlling False Discovery Rate for Exploratory Factor Analysis model
Ms. Xinyi Liu

Margaret Brent (Second Floor)
Session: Causal Inference
Chair: Dr. Sy-Miin Chow
Social network mediation analysis using degree-corrected stochastic block model
Mr. Chunyang Zhao
A New Causal Mediation Approach Based on Observational Mediation Modeling and Instrumental Variable Regression
Dr. Zijun Ke
Longitudinal mediation models: Understanding the impact of confounders and colliders
Ms. Ziwei Zhang
Examining Instrument Relevance when There are Multiple Endogenous Predictors: A new Index
Dr. Zijun Ke
Investigating weight constraint methods in causal-formative indicator modeling
Ms. Ruoxuan Li

Juan Ramon Jimenez (Second Floor)
Session: Bayesian Methods
Chair: Dr. Xueying Tang
Addressing Publication Bias and Uncertainty for Power Analysis: A Hybrid Classical-Bayesian Approach
Ms. Winnie Wing-Yee Tse
Alignment with Bayesian Region of Measurement Equivalence (ABROME) Approach for Multiple Groups Comparisons
Ms. Yichi Zhang
Estimating data saturation in qualitative research using approximate bayesian computation
Mr. Jinghao Ma
Identifiability and Estimability of Bayesian Linear and Nonlinear Crossed Random Effects Models
Mrs. Corissa Rohloff

Thurgood Marshall (Second Floor)
Session: Model Fit
Chair: Prof. Zhenqiu Lu
Pairwise likelihood limited information goodness of fit tests for factor models
Dr. Haziq Jamil
Using item scores and response times in person-fit assessment
Ms. Kylie Gorney
Latent class analysis with measurement invariance testing: simulation study to compare overall likelihood ratio vs residual fit statistics based model selection
Dr. Zsuzsa Bakk
Necessity of model selections in CFA: The absolute fit indices versus the general classification methods
Ms. Hyunjee Oh
A re-evaluation of cross-validation methods for psychological time series data
Ms. Di Jody Zhou

4:15 p.m. - 5:30 p.m.

Colony Ballroom (Second Floor)
Margaret Brent (Second Floor)
Juan Ramon Jimenez (Second Floor)
Thurgood Marshall (Second Floor)
Benjamin Banneker (Second Floor)
<table>
<thead>
<tr>
<th>Time</th>
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<th>Session</th>
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<tbody>
<tr>
<td>9:00 a.m. - 10:15 a.m.</td>
<td>Colony Ballroom (Second Floor)</td>
<td>Spotlight Session: Perspectives on Psychometrics&lt;br&gt;Chair: Dr. Denny Borsboom&lt;br&gt;Some pathologies of psychometrics: philosophical perspectives&lt;br&gt;Dr. Mark Wilson&lt;br&gt;Was psychometrics a mistake? Criticism from metrology and axiomatic measurement.&lt;br&gt;Dr. Keith Markus</td>
</tr>
<tr>
<td>9:30 a.m. - 10:45 a.m.</td>
<td>Atrium (First Floor)</td>
<td>Session: IRT Applications&lt;br&gt;Chair: Dr. Dmitry Belov&lt;br&gt;Leveraging Language Prompts to Generate Distractors for Fill-in-the-blank Items&lt;br&gt;Dr. Jiyun Zu&lt;br&gt;Estimating an individuals’ contribution to small-group task performance&lt;br&gt;Dr. Patrick Kyllonen&lt;br&gt;Modeling supervised and unsupervised items for non-cognitive tests&lt;br&gt;Dr. Veronica Cole&lt;br&gt;Comparing IRT-based models for recognition task data&lt;br&gt;Ms. Nana Kim</td>
</tr>
<tr>
<td>10:15 a.m. - 11:15 a.m.</td>
<td>Prince George’s Room (First Floor)</td>
<td>Session: Longitudinal and Multilevel Models&lt;br&gt;Chair: Prof. Shelley Blozis&lt;br&gt;Bridging the gap between probabilistic perception and generalization behavior with a computational model&lt;br&gt;Mr. Kenny Yu&lt;br&gt;Comparison of multilevel vs. standard prediction algorithms on nested data&lt;br&gt;Ms. Brennan Register&lt;br&gt;Fitting differential equation models to ILD with numerical optimizer&lt;br&gt;Dr. Yueqin Hu&lt;br&gt;Sample Planning For Detecting Cross-lag effect in Longitudinal Studies With Ordinal Outcomes&lt;br&gt;Ms. Sijing (SJ) Shao&lt;br&gt;The many reliabilities of affective dynamics&lt;br&gt;Dr. Sebastian Castro-Alvarez</td>
</tr>
<tr>
<td>10:30 a.m. - 11:30 a.m.</td>
<td>Benjamin Banneker (Second Floor)</td>
<td>Session: Differential Item Functioning&lt;br&gt;Chair: Prof. Jeff Douglas&lt;br&gt;Differential algorithmic functioning: A framework for evaluating fairness in algorithmic decision making&lt;br&gt;Dr. Youmi Suk&lt;br&gt;An effect size and asymptotic test for differential test functioning&lt;br&gt;Dr. Peter Halpin&lt;br&gt;DIF Statistical Inference without Knowing Anchoring Items&lt;br&gt;Ms. Jing Ouyang</td>
</tr>
<tr>
<td>10:30 a.m. - 11:30 a.m.</td>
<td>Charles C. Carroll (Second Floor)</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>10:30 a.m. - 11:30 a.m.</td>
<td>Colony Ballroom (Second Floor)</td>
<td>Presidential Address: Prof. Jeff Douglas&lt;br&gt;Some dichotomies in restricted latent class models for diagnostic classification&lt;br&gt;Chair: Prof. David Kaplan</td>
</tr>
</tbody>
</table>
Meeting of the Members, Awards, and Closing Ceremony
Chair: Prof. Carolyn Anderson

Closing Reception Excursion
6:15 p.m. - 10:30 p.m.: Transportation Available • 7:00 p.m. - 10:00 p.m.: Event
For more details, visit the Closing Reception webpage.
Special thank you to our IMPS 2023 Sponsors and Exhibitors this year!

New this year, Exhibitors and Sponsors will be located in the Coffee Break refreshment area (Charles C. Carroll Room [Second Floor of the Stamps Union]). All IMPS refreshment breaks will take place in this location.

Please plan time to and visit with these companies and organizations during the week of IMPS 2023!

**EXHIBIT AREA HOURS**
Tuesday, July 25 | 10:00 a.m. - 2:30 p.m.
Wednesday, July 26 | 10:15 a.m. - 4:15 p.m.
Thursday, July 27 | 10:15 a.m. - 4:15 p.m.
Friday, July 28 | 8:30 a.m. - 10:30 a.m.

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