Final Program

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IMPS 2023 Welcome

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.

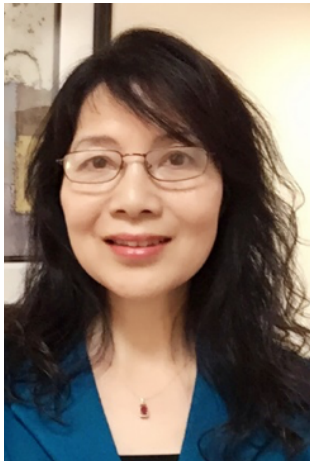
We are pleased to have a complete program featuring eminent keynote and invited speakers with topics spanning many areas of psychometrics. The College Park area has much to offer, within both the beautiful University of Maryland campus and the surrounding area which includes Washington, D.C. We have 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



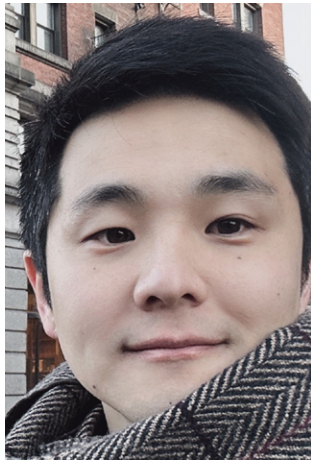
Short Course #2:
Computerized Adaptive Testing and Multistage Testing with R
Monday, July 24, 2023 | 9:00 a.m. - 5:00 p.m.

Speakers:
Alina A. von Davier
Duanli Yan

IMPS 2023 Keynote Speakers

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?



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. 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

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

IMPS 2023 Invited Speakers

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 d'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.

General Conference Information

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**.

The opening session, keynotes, group photo, awards, members meeting and closing talks will take place in the Colony Ballroom (Second Floor). The concurrent sessions will take place on both the first and second floors. In addition to the educational meeting spaces, Stamps Union offers a food court (refer to **Dine@UMD**), and the **TerpZone** (bowling alley) for attendees' additional enjoyment.

Refer to the enclosed maps on pages 13-14 for a particular session room, the registration area, and/or the coffee break area.

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 a 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 – Monday, July 24
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

Program Committee for IMPS 2023

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.

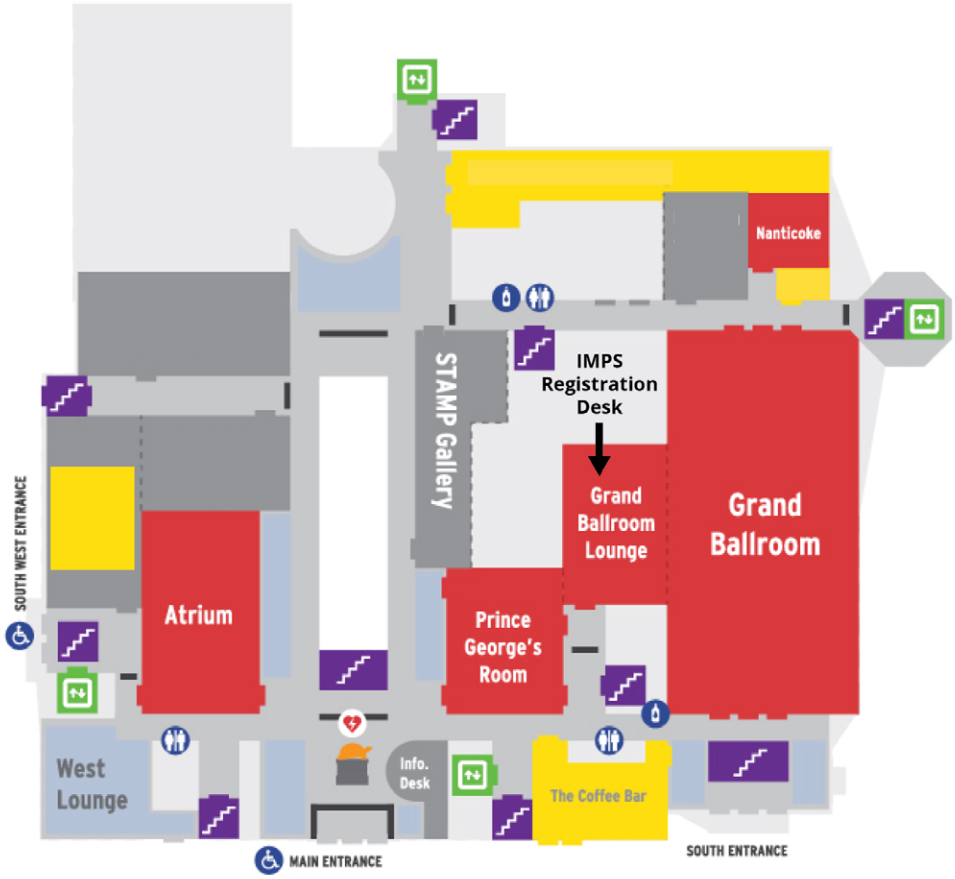
We sincerely hope you have a wonderful visit to College Park, Maryland (Washington, D.C.). Thank you for joining us at IMPS 2023!

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

Conference Maps

FIRST FLOOR (1F)



SECOND FLOOR (2F)

Conference Maps

GROUND FLOOR (G)

BASEMENT (B)

IMPS Registration Hours of Operation

Adele H. Stamp Student Union Building
Address: 3972 Campus Dr, College Park, MD 20742
Registration Room: Grand Ballroom Lounge (First Floor)

Monday, July 24:	Tuesday, July 25:	Wednesday, July 26:	Thursday, July 27:	Friday, July 28:
8:00 a.m. - 11:00 a.m. & 2:30 p.m. - 4:30 p.m.	8:00 a.m. - 4:30 p.m.	8:30 a.m. - 4:30 p.m.	8:30 a.m. - 4:30 p.m.	8:30 a.m. - 1:00 p.m.

All Times Listed in Eastern Time

Monday • July 24

Full-Day Short Courses

9:00 a.m. - 5:00 p.m.

Juan Ramon Jimenez (Second Floor)

Short Course #1:
From Collecting Log-data to Analyzing Process Indicators with logLime R packageLog Data
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

Margaret Brent (Second Floor)

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

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

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.

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

Colony Ballroom (Second Floor)

Welcome

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

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

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

Charles C. Carroll (Second Floor)

Coffee Break

10:15 a.m. - 11:30 a.m.

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. Zhongtian Lin

Item drift for item clusters
Dr. Mengyao Cui

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

Atrium (First Floor)

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

Prince George's Room (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

Benjamin Banneker (Second Floor)

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

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

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

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 Vanhasbroeck

TUESDAY CONTINUED
11:30 a.m. - 1:00 p.m.

Attendee Lunch (On Your Own)

Lunch Break

Refer to the Where to Dine @UMD Map

1:00 p.m. - 2:00 p.m.

Colony Ballroom (Second Floor)

Career Award for Lifetime Achievement Speaker: Prof. Klaas Sijtsma

Who Cares about Psychometrics?

Chair: Prof. Jeff Douglas

2:00 p.m. - 2:30 p.m.

Colony Ballroom (Second Floor)

Group Photo (2:00 - 2:15)

All attendees welcome!

Charles C. Carroll (Second Floor)

Coffee Break (2:15 - 2:30)

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

Colony Ballroom (Second Floor)

Symposium: Psychometric Analysis of Patient Reported Outcomes
Chair: Prof. Jeff Douglas

Psychometric Analysis of Patient Reported Outcomes
Prof. Jeff Douglas

Opportunities and Challenges in the Field of Patient Reported Outcomes
Dr. Charlie Iaconangelo

Some methodologic challenges in analyzing patient-reported outcomes in health sciences
Dr. Edward Ip

A latent variable mixed-effects location scale model for patient reported longitudinal data
Prof. Shelley Blozis

A hidden Markov modelling approach for understanding patient health over time
Mr. Eric Wayman

Atrium (First Floor)

Session: Computerized Adaptive Testing
Chair: Dr. Duanli Yan

Developing CD-CAT algorithms for college gate-way STEM courses
Ms. Xiuxiu Tang

A Dynamic Balancing Attribute Coverage Method for CD-CAT
Dr. Chia-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

Prince George's Room (First Floor)

Session: Computational Methods for Latent Variable Models
Chair: Prof. Ying Cheng

Priors in Bayesian Estimation under the Graded Response Model
Prof. Seock-Ho Kim

A doubly stochastic gradient algorithm for high-dimensional latent variable models
Mr. Motonori Oka

Assessing fitting propensities of item response models using limited-information methods
Dr. Yon Soo Suh

Fast M-Estimation of GLLVM in High Dimensions
Prof. Maria-Pia Victoria-Feser

Using Cross-Validation for Parameter Selection in Cubic Spline Postsmoothing
Dr. Stella Kim

Benjamin Banneker (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. Kentaro Fukushima

Restricted HMM for latent class attribute transitions
Mr. Theren Williams

Higher order personalized slip tendency model for cognitive diagnosis
Ms. Yunting Liu

Q-matrix identification using text classification: TF-IDF and word embedding
Mr. Yuxiao Zhang

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 Equating
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

IRTree models of co-occurring dominance and ideal point response processes
Ms. Viola Merhof

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. Xiaying 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

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. Roti 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

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

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

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.

Photo courtesy of Radhika Kshirsagar

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

Colony Ballroom (Second Floor)

Symposium: Psychometrics at College Board
Chair: Dr. Luz Bay

Moderator: Dr. Luz Bay

Panelists:
Dr. Jiansen (Cassie) Chen
Dr. Weiwei Cui
Dr. Yuan Ge
Dr. Joseph Grochowalski
Dr. Amy Hendrickson
Dr. YoungKoung Kim
Dr. Tim Moses
Dr. Lei Wan
Dr. Xiuyuan Zhang

Atrium (First Floor)

Session: Process Data
Chair: Dr. Qiwei He

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

Prince George's Room (First Floor)

Session: CD-CAT
Chair: Prof. Susu Zhang

The Nonparametric Item Selection Method for Multiple-Choice Items in CD-CAT
Ms. Yu Wang

CD-CAT for the Extended Multiple-Choice DINA model
Prof. Jimmy de la Torre

Termination Rules for Hierarchical Cognitive Diagnosis Computerized Adaptive Testing
Dr. Ya-Hui Su

Designing Item Pools for Nonparametric CD-CAT
Dr. Jiahui Zhang

Benjamin Banneker (Second Floor)

Session: Missing Data
Chair: Prof. David Kaplan

Handling missing data in ecological momentary assessments via later retrieval
Dr. Manshu Yang

Evaluating model fit with missing nonnormal data in SEM
Dr. Fan Jia

Mixture of missing-data mechanisms in multigroup invariance testing
Dr. Young Min Kim

Regularized estimation of the Gaussian graphical model under planned missing data
Dr. Carl Falk

Performance of Item-Fit Test Statistics in Cognitive Diagnosis Modeling based on Imputed Missing Data
Dr. Kevin Carl Santos

Margaret Brent (Second Floor)

Session: Diagnostic Classification Models
Chair: Prof. Jeff Douglas

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

Juan Ramon Jimenez (Second Floor)

Session: Differential Item Functioning
Chair: Dr. Terry Ackerman

DIF detection in a response time measure: an LRT method
Dr. Anne Thissen-Roe

Empirical evaluations of DIF detection methods
Dr. Yevgeniy Ptukhin

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

Thurgood Marshall (Second Floor)

Session: Bayesian Methods
Chair: Dr. Tracy Sweet

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

10:15 a.m. - 10:30 a.m.

Charles C. Carroll (Second Floor)

Coffee Break

10:30 a.m. - 11:15 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

Atrium (First Floor)

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

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

Attendee Lunch (On Your Own)

Lunch Break
Refer to the Where to Dine @UMD Map

1:35 p.m. - 2:35 p.m.

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.

Colony Ballroom (Second Floor)

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 Sung

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

Atrium (First Floor)

Session: Validity and Reliability
Chair: Dr. Tim Moses

How are item difficulties and item discriminations related? Does that matter?
Dr. Sandip Sinharay

Exploring Attenuation of Reliability in Categorical Subscore Reporting
Dr. Richard Feinberg

Exploring response biases in rating scales data with interaction map
Mr. Jinwen Luo

Impact of ignoring rater effects in objective structured clinical examinations
Dr. Daniel Edi

Extending reliability to intensive longitudinal data with the Kalman filter
Dr. Michael Hunter

Prince George's Room (First Floor)

Session: Machine Learning
Chair: Prof. Hong Jiao

Classifying normal and aberrant behaviors through machine learning
Ms. Suhwa Han

Neural networks approach to estimate IRT models in small samples
Dr. Dmitry Belov

Online calibration for P-MCAT: A neural network based approach
Dr. Lu Yuan

Validating automated methods for measuring psychological constructs in text
Mr. Daniel Low

Benjamin Banneker (Second Floor)

Session: Multidimensional IRT
Chair: Prof. Chun Wang

Application of MCMC algorithm with Davidian curve in Multidimensional IRT models
Dr. Xue Zhang

Accommodating curvilinear unidimensional approximations to multidimensionality: IRT modeling implications
Ms. Xiangyi Liao

Multidimensional Beta Factor Analysis for Bounded and Asymmetric Item Response Data
Mr. Alfonso J. Martinez

Multidimensional Item Response Tree Model and Its Application to Investigating Response Styles
Dr. Biao Zeng

Method Effects of Item Wording: MIRT Estimation Based on Equivalence Method
Dr. Biao Zeng

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 Wilderjans

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?
Mx. 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

WEDNESDAY CONTINUED
3:55 p.m. - 4:15 p.m.

Charles C. Carroll (Second Floor)

Coffee Break

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

Colony Ballroom (Second Floor)

Symposium: 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-Miin 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. Safir Yousfi

An Examination of the Interaction between Reliability and DIF Detection
Dr. Terry Ackerman

Pervasive DIF and DIF detection bias
Dr. Paul De Boeck

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. Bellete 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 Pearce

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

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

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: Differential Item Functioning
Chair: Dr. Patrick Kyllonen

DIF Analysis with Unknown Groups and Anchor Items
Dr. Gabriel Wallin

Integrated Approach for Detecting Differential Item Functioning (DIF) in Survey Adapted Montreal Cognitive Assessment (MoCA-SA)
Dr. Ji Eun Park

A Comparison of Methods for Adjusting Samples and Test Score Distributions for Group Differences
Dr. Tim Moses

Understanding differential item functioning using process data
Ms. Ling Chen

Benjamin Banneker (Second Floor)

Session: Item Response Theory
Chair: Prof. Jee-Seon Kim

Scalable explanatory IRT modeling with sparse data structures
Dr. J.R. Lockwood

Mitigating Bias in Ability Estimates during Routing in Multistage Testing
Ms. Merve Sarac

The Gumbel-Reverse Gumbel (GRG) Model for Binary Data: A New Asymmetric IRT Model
Prof. Jay Verkuilen

Quantile multilevel item response theory model with a change point
Dr. Hongyue Zhu

Margaret Brent (Second 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

Juan Ramon Jimenez (Second Floor)

Session: Item Response Theory
Chair: Dr. Anne Thissen-Roe

Differential item functioning treatment in computerized adaptive testing item pools
Mr. Juyoung Jung

Linking method for writing tests using item response theory and automated essay scoring
Mr. Kota Aramaki

Towards advancing precision environmental health: Developing a customized exposure burden score to PFAS chemicals using mixture item response theory
Dr. Shelley Liu

Thurgood Marshall (Second Floor)

Session: Statistical Methods and Theory
Chair: Dr. Tracy Sweet

Identifiability of Polychoric Models with Latent Elliptical Distributions
Mr. Che Cheng

A familiy of discrete kernels for presmoothing
Dr. Jorge González

Nonparametric estimation of the risk or rate ratio in rare events meta-analysis with arm-based and contrast-based approaches
Prof. Heinz Holling

Equivalence test and sample size procedures for ANCOVA designs
Dr. Gwowen Shieh

Maximum likelihood estimation using a possibly misspecified parameter redundant model
Dr. Richard M. Golden

10:15 a.m. - 10:30 a.m.

Charles C. Carroll (Second Floor)

Coffee Break

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

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

1:45 p.m. - 3:00 p.m.

Colony Ballroom (Second Floor)

Symposium: Capturing sample heterogeneity in dynamic psychological processes
Chair: Ms. Di Jody Zhou

Capturing sample heterogeneity in dynamic psychological processes
Ms. Di Jody Zhou

A Bayesian mixture multilevel vector autoregressive model
Ms. Xingyao Xiao

Identifying and Explaining Sample Heterogeneity in Dynamic Psychological Processes Using ml-VARTree
Ms. Di 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

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. Sunhyoung 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. Zhenqiu Lu

State Space Models for Ordinal Measurements: Towards a Generalized Dynamic IRT
Dr. Teague Henry

Power Considerations in Dynamic Structural Equation Models
Mr. Hyungeun 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. Ömer Emre Can Alagöz

Model averaging of (nonlinearly related) item response models
Dr. Leah Feuerstahler

Margaret Brent (Second Floor)

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 Amma Asamoah

Juan Ramon Jimenez (Second Floor)

Session: Missing Data
Chair: Dr. Zsuzsa Bakk

A tailored sensitivity analysis procedure for the social sciences
Dr. Brenna Gomer

Pay attention to ignorable missingness! How variations in the missing at random mechanism affect efficiency loss in parameter estimates
Dr. Lihan Chen

The performance of strategies for handling non-effortful responses in equating
Mr. Juyoung Jung

Estimators of the AIC and BIC in multiply imputed data
Dr. Joost Van Ginkel

Missing data in discrete time state-space modeling of EMA data
Ms. Lindley Slipetz

Thurgood Marshall (Second Floor)

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. Yunting Liu

3:05 p.m. - 3:50 p.m.

Colony Ballroom (Second Floor)

Early Career Award Speaker: Prof. Gongjun Xu
Identifiability of Cognitive Diagnosis Models

Chair: Prof. Jeff Douglas

THURSDAY CONTINUED
3:50 p.m. - 4:10 p.m.

Charles C. Carroll (Second Floor)

Coffee Break

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

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. Amirreza 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

Estimating the Completely Oblique 2-parameter Bifactor Model
Mr. Denis Federiakin

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 CD: 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

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

Colony Ballroom (Second Floor)

Spotlight Session: Perspectives on Psychometrics
Chair: Dr. Denny Borsboom

Some pathologies of psychometrics: philosophical perspectives
Dr. Mark Wilson

Was psychometrics a mistake? Criticism from metrology and axiomatic measurement.
Dr. Keith Markus

Atrium (First Floor)

Session: Longitudinal and Multilevel Models
Chair: Prof. Shelley Blozis

Bridging the gap between probabilistic perception and generalization behavior with a computational model
Mr. Kenny Yu

Comparison of multilevel vs. standard prediction algorithms on nested data
Ms. Brennan Register

Fitting differential equation models to ILD with numerical optimizer
Dr. Yueqin Hu

Sample Planning For Detecting Cross-lag effect in Longitudinal Studies With Ordinal Outcomes
Ms. Sijing (SJ) Shao

The many reliabilities of affective dynamics
Dr. Sebastian Castro-Alvarez

Prince George's Room (First Floor)

Session: Item Response Theory
Chair: Prof. Daniel Bolt

The Implications of IRT calibration and IRT scoring choices on group differences for large scale language exams
Dr. YoungKoung Kim

Accurately Estimating the Dimensional Relationships With the Three-Tier IRT Model
Dr. Ken Fujimoto

Information test of model fit assessment for multidimensional item response models
Mr. Youngjin Han

Benjamin Banneker (Second Floor)

Session: Differential Item Functioning
Chair: Prof. Jeff Douglas

Differential algorithmic functioning: A framework for evaluating fairness in algorithmic decision making
Dr. Youmi Suk

An effect size and asymptotic test for differential test functioning
Dr. Peter Halpin

DIF Statistical Inference without Knowing Anchoring Items
Ms. Jing Ouyang

Margaret Brent (Second Floor)

Session: IRT Applications
Chair: Dr. Dmitry Belov

Leveraging Language Prompts to Generate Distractors for Fill-in-the-blank Items
Dr. Jiyun Zu

Estimating an individuals' contribution to small-group task performance
Dr. Patrick Kyllonen

Modeling supervised and unsupervised items for non-cognitive tests
Dr. Veronica Cole

Comparing IRT-based models for recognition task data
Ms. Nana Kim

Juan Ramon Jimenez (Second Floor)

Session: Measurement Applications
Chair: Prof. Susu Zhang

Exploring the Feasibility and Effectiveness of using NLP for Generating Valid and Reliable Clinical Skills Assessment Items: An Expert Review Approach
Dr. Burhanettin Ozdemir

Using Residual Analysis to Evaluate Invariant Measurement In Cross-cultural Research: The Case of Mathematics Behaviors
Ms. Cigdem Toptas

Examining the influence of linguistic features of student writing on rater scores with latent profile analysis
Dr. Magdalen Beiting-Parrish

Intuitive Discrete Model for Lickert Scale Called GSD
Prof. Lucjan Janowski

Impact of low quality data on psychometric properties of scale
Dr. Nivedita Bhaktha

Thurgood Marshall (Second Floor)

Session: Measurement Applications
Chair: Prof. Youn Seon Lim

Development of an eleven-Item scale for measuring food insecurity
Ms. Jing Li

Investigating a potentially culturally relevant NAEP reading text passage
Dr. Saki Ikoma

Evaluation of the effect of test delivery modes to item difficulties in a high-stake medical test
Dr. Luc Le

Examining intelligence assessment in autism, developmental delay, and language impairments
Dr. Stephanie Northington

10:15 a.m. - 10:30 a.m.

Charles C. Carroll (Second Floor)

Coffee Break

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

Colony Ballroom (Second Floor)

Presidential Address: Prof. Jeff Douglas
Some dichotomies in restricted latent class models for diagnostic classification
Chair: Prof. David Kaplan

FRIDAY CONTINUED
11:30 a.m. - 12:45 p.m.

Colony Ballroom (Second Floor)

Meeting of the Members, Awards, and Closing Ceremony

Chair: Prof. Carolyn Anderson

6:15 p.m. - 10:30 p.m.

Off-site Location: International Spy Museum | 700 L'Enfant Plaza SW, Washington, DC 20024

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.

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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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