IMPS 2022

BOLOGNA ITALY

University of Bologna
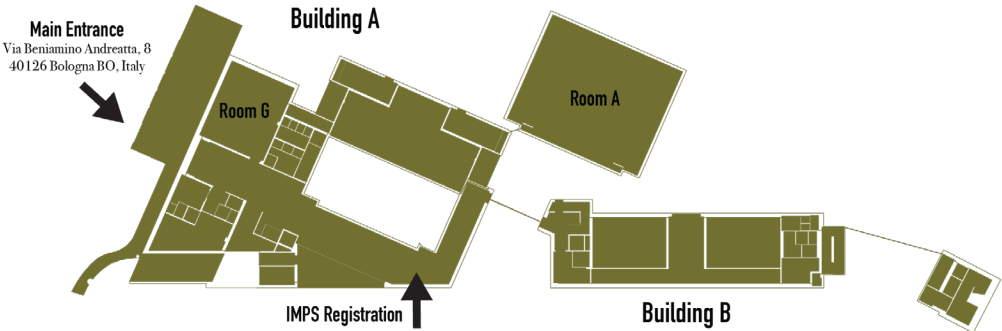
July 11–15

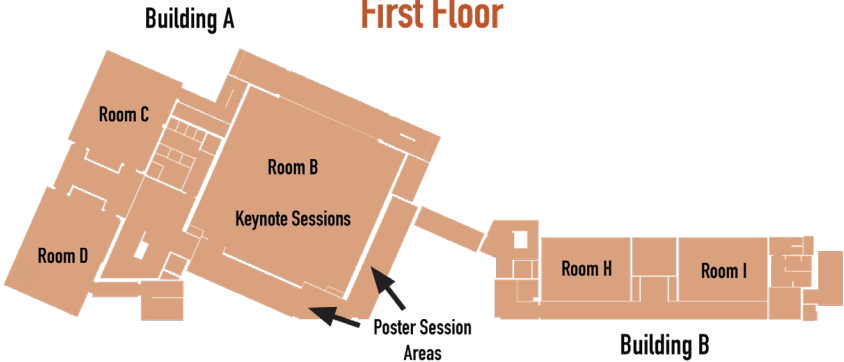# Schedule at a Glance

IMPS 2022 Map

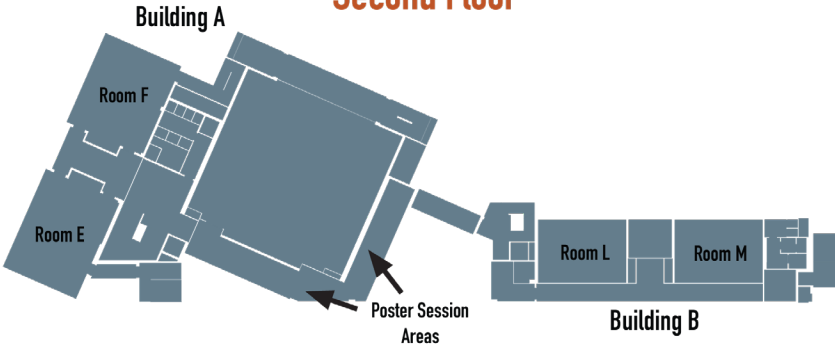## University of Bologna - Belmeloro Building

Ground Floor

Building A

Main Entrance
Via Beniamino Andreatta, 8
40126 Bologna BO, Italy

Room G

Room A

IMPS Registration

Building B

First Floor

Building A

Room C

Room B
Keynote Sessions

Room D

Poster Session Areas

Room H

Room I

Building B

Second Floor

Building A

Room F

Room E

Poster Session Areas

Room L

Room M

Building B

IMPS Registration Hours of Operation

Belmeloro Building (Ground Floor)
psychometricsociety.org/imps2022-venue
Via Beniamino Andreatta, 8, 40126 Bologna BO, Italy

Monday, July 11:	**Tuesday, July 12:**	**Wednesday, July 13:**	**Thursday, July 14:**	**Friday, July 15:**
09:00 - 15:30	09:00 - 16:00	09:00 - 17:00	09:00 - 12:30	09:00 - 15:00

Monday • July 11

	Room G (Ground Floor)	Room C (First Floor)	Room F (Second Floor)
Full-Day Short Courses **10:00 - 17:30**	**Short Course #1: Analyzing NAEP and TIMSS Data with Direct Estimation Using R** *Speakers: Prof. Emmanuel Sikali, Prof. Paul Bailey, & Prof. Ting Zhang* 10:00 - 11:30 • Course 11:30 - 11:50 • Coffee Break 11:50 - 13:20 • Course 13:20 - 14:30 • Lunch on Your Own 14:30 - 16:00 • Course 16:00 - 16:20 • Coffee Break 16:20 - 17:30 • Course	**Short Course #2: Machine Learning and Interpretable Machine Learning with R** *Speakers: Prof. Carolin Strobl, Prof. Mirka Henninger, & Prof. Yannick Rothacher* 10:00 - 11:30 • Course 11:30 - 11:50 • Coffee Break 11:50 - 13:20 • Course 13:20 - 14:30 • Lunch on Your Own 14:30 - 16:00 • Course 16:00 - 16:20 • Coffee Break 16:20 - 17:30 • Course	**Short Course #3: SimSEM-in-R: Simulating Structural Equation Models Using lavaan and simsem** *Speakers: Prof. Terrence D. Jorgensen* 10:00 - 11:30 • Course 11:30 - 11:50 • Coffee Break 11:50 - 13:20 • Course 13:20 - 14:30 • Lunch on Your Own 14:30 - 16:00 • Course 16:00 - 16:20 • Coffee Break 16:20 - 17:30 • Course
	Room D (First Floor)	Room E (Second Floor)	Room D (First Floor)
Half-Day Short Courses **(AM ONLY)** **10:00 - 13:20** **or** **(PM ONLY)** **14:30 - 17:40**	**Short Course #4: Introductory course on lavaan** **(AM ONLY)** *Speakers: Prof. Yves Rosseel* 10:00 - 11:30 • Course 11:30 - 11:50 • Coffee Break 11:50 - 13:20 • Course	**Short Course #5: Computerized Adaptive Testing and Multistage Testing with R** **(AM ONLY)** *Speakers: Prof. Alina A. von Davier & Prof. Duanli Yan* 10:00 - 11:30 • Course 11:30 - 11:50 • Coffee Break 11:50 - 13:20 • Course	**Short Course #6: Understanding SEM: Where do all the numbers come from?** **(PM ONLY)** *Speakers: Prof. Yves Rosseel* 14:30 - 16:00 • Course 16:00 - 16:20 • Coffee Break 16:20 - 17:40 • Course

- IMPS Coffee Breaks are located on the Ground Floor of the Belmeloro Building near the IMPS Registration Desk area. -

Tuesday • July 12

09:30 - 09:45

Room B (First Floor)

Welcome
Chair: Prof. Irini Moustaki, Prof. Silvia Cagnone, Prof. Marilena Pillati, and Prof. Carlo Trivisano

09:50 - 10:35

Room B (First Floor)

Invited Talk: Prof. Alessio Farcomeni
Assessing measurement invariance for longitudinal data through latent Markov models
Chair: Prof. Silvia Cagnone

Room A (Ground Floor)

Invited Talk: Dr. Tracy Sweet
Latent variable models for social network data
Chair: Dr. Edgar Merkle

10:35 - 10:55

Two Locations - Refer to Map: Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor)

Coffee Break

10:55 - 12:10

Room B (First Floor)

Symposium: New lights on dynamic models for intensive time series and panel data
Chair: Dr. Janne Adolf

Improved estimation of autoregressive models through contextual impulses and robust modeling
Dr. Janne Adolf

Including context and serial dependence in regression models of time series
Mr. Sigert Ariens

Dynamics in large scale online learning
Dr. Charles Driver

Mixture multilevel vector-autoregressive modeling
Dr. Anja Ernst

Room A (Ground Floor)

Symposium: Measuring the moment: Psychometric considerations and applications
Chair: Ms. Leonie Cloos

Latent Markov factor analysis for evaluating measurement model differences in intensive longitudinal data
Dr. Leonie Vogelsmeier

Evaluating dynamics in affect measurement with latent Markov factor analysis
Ms. Leonie Cloos

Manageable intensive longitudinal measurement(?)
Dr. Joran Jongerling

Assessing the reliability of single-item momentary mood measurements in experience sampling
Prof. Francis Tuerlinckx

Room C (First Floor)

Symposium: Connecting Knowledge Space Theory to other formal theories
Chair: Dr. Debora de Chiusole

Regularized parameter estimation for probabilistic knowledge structures
Prof. Matthias Gondan

On the identifiability of 3 and 4 parameters Item Response Theory models from the perspective of Knowledge Space Theory
Dr. Stefano Noventa

Constructing, improving, and shortening tests with Competence-Based Test Development methodology
Dr. Pasquale Anselmi

A competence-based knowledge space theory learning platform for promoting quantitative thinking in higher education
Dr. Andrea Brancaccio

Modeling preference with the basic local independence model
Dr. Debora de Chiusole

Room D (First Floor)

Symposium: Advances in use of response process data in measurement
Chair: Dr. Kadriye Ercikan

Understanding Students' test engagement for feedback
Dr. Hongwen Guo

Examining numeric sequence similarity measures with dynamic time warping method
Dr. Qiwei He

Psychometric considerations for the joint modeling of response and process data
Dr. Matt Johnson

Modeling student problem solving behavior using mixed types of response process data
Dr. Caitlin Tenison

A speed-accuracy response model with conditional dependence
Dr. Peter van Rijn

Room G (Ground Floor)

Session: Meta Analysis
Chair: Dr. Dmitry Beov

Estimating effect heterogeneity in rare events meta-analysis with nonparametric mixture models
Ms. Katrin Jansen

Synthesizing research on complex sampling surveys: Two-stage meta-analysis with individual participant data
Mr. Diego Campos

Checking the inventory: Currently available methods for raw data MASEM
Mr. Lennert Groot

Dependent effect sizes in MASEM: The current state of affairs
Ms. Zeynep Bilici

Using meta-analytic structural equation modeling to synthesize randomized controlled trials
Ms. Hannelies de Jonge

Room E (Second Floor)

Session: Causal Inference I
Chair: Prof. Wicher Bergsma

Propensity score analysis with latent variables: Choices of factor scores and data mining methods
Dr. Ge Jiang

Bayesian mediation analysis with power prior distributions
Dr. Milica Miocevic

Synthesizing data from pretest-posttest-control-group designs in meta-analyses of mediating mechanisms
Ms. Zhiming Lu

TUESDAY CONTINUED 12:10 - 13:30	On Your Own **Attendee Lunch**	Restaurant: Scuderia **Graduate Student Luncheon Mixer** scuderia.futurefood.network Piazza Giuseppe Verdi, 2, 40126 Bologna BO, Italy *This event is exclusively for graduate students and will be hosted by the Psychometric Society*

13:30 - 14:30

Room B (First Floor)

Keynote: Prof. Robert Mislevy
Further remarks on evidence and inference in educational assessment
Chair: Prof. Alina von Davier

14:30 - 14:50

Room B (First Floor)

IMPS 2022 Group Photo
All attendees welcome!

14:50 - 16:05

Room B (First Floor)

Symposium: Advances in using response times for understanding between- person differences and within-person changes in test-takers' behavior
Chair: Prof. Steffi Pohl and Ms. Esther Ulitzsch

What changes in Diffusion IRT model parameters can tell us about the speed-accuracy tradeoff
Mr. Tobias Alfers

A sequential Bayesian changepoint detection procedure for aberrant behaviors in computerized testing
Dr. Jing Lu

Using item response times to explain group differences in item parameter
Dr. Dylan Molenaar

Modeling the process underlying solution and non-solution behavior with a non-linear ballistic accumulator model
Mr. Sören Much

SAT in psychometric assessments: a latent growth approach
Mr. Augustin Mutak

Room A (Ground Floor)

Symposium: Information warfare: quantitative methods to understand online manipulation campaigns
Chair: Dr. Hudson Golino

Playing HAVOK with the chaos caused by internet trolls
Ms. Elena Martynova

Dynamic exploratory graph analysis: Russian trolls and the US elections
Dr. Hudson Golino

Metric invariance: Differences between Left and Right-wing Russian trolls and the US elections
Ms. Laura Jamison

Room C (First Floor)

Symposium: Advances in methods for sample size determination in the social sciences
Dr. Ginette Lafit

A general Monte Carlo method for sample size analysis in the context of network models
Mr. Mihai Constantin

Power analysis methods for mediation and moderated mediation models
Ms. Jessica Fossum

Fast power computations in multilevel models for intensive longitudinal designs
Dr. Ginette Lafit

Predictive accuracy analysis: A new sample size planning method
Mr. Jordan Revol

Room D (First Floor)

Session: Bayesian SEM
Chair: Dr. Matt Johnson

A simple method for handling reflective invariance in Bayesian IRT
Mr. Keishi Nomura

Bayesian evaluation of approximate measurement invariance
Ms. Dandan Tang

How does prior variance affect local dependence detection in CFA
Ms. Xinyu Qiao

BSEM modification indices: missed parameters and how to find them
Dr. Mauricio Garnier-Villarreal

An iterative approach to flexible multivariate prior elicitation
Ms. Sydne McCluskey

Room G (Ground Floor)

Session: Large-scale assessments
Chair: Dr. Yunxiao Chen

Evaluation of common items using DIF on longitudinal TIMSS datasets
Dr. Youn-Jeng Choi

Concordance for large scale assessments
Dr. Liqun Yin

Consequences of hierarchical data structures for the estimation of plausible values
Ms. Eva Zink

Motivation towards mathematics from 1980 to 2015: Exploring the feasibility of longitudinal scaling
Ms. Erika Majoros

Bayesian dynamic borrowing with longitudinal large-scale assessment data
Prof. David Kaplan

Room E (Second Floor)

Session: Rater Models and Related Topics
Chair: Dr. Patricia Martinkova

Latent thresholds in classification tasks: A novel statistical model
Mr. Giuseppe Mignemi

Optimal weights for compound scores derived from multiple raters
Prof. Cees Glas

Examining rater bias using IRT cross-classified multilevel modeling
Dr. Igor Himelfarb

Evaluating quality of selection procedures in a binary classification framework: An alternative to inter-rater reliability
Mr. František Bartoš

A simulation-based test to investigate interrater agreement for binary time series
Dr. Nadja Bodner

Room F (Second Floor)

Session: Dynamic SEM
Chair: Dr. Joran Jongerling

Individual dynamic models using regularized hybrid unified structural equation modeling
Ms. Ai Ye

Forecasting university student drop out in math with ILD
Prof. Augustin Kelava

Early response to treatment in anorexia nervosa: A dynamic study
Mrs. Nuria Real-Brioso

The growth components approach: Recent developments, extensions, and applications
Prof. Axel Mayer

TUESDAY CONTINUED 16:05 - 16:25	**Two Locations - Refer to Map:** Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor) **Coffee Break**

	Room B (First Floor)	Room A (Ground Floor)
16:25 - 17:05	**Dissertation Prize: Prof. James Balamuta** **Bayesian estimation of restricted latent class models: Extending priors, link functions and structural models** *Chair: Prof. David Kaplan*	**Dissertation Prize: Prof. Ummugul Berzihan** **Conditional dependence between response time and accuracy in cognitive diagnostic models** *Chair: Prof. Terry Ackerman*

17:30 - 19:00	Palazzo Poggi Museum **IMPS Welcome Reception** sma.unibo.it/it/il-sistema-museale/museo-di-palazzo-poggi Via Zamboni, 33, 40126 Bologna BO, Italy *All attendees and guests are welcome!*

Photo Courtesy of Anastasia Zhenina

Wednesday • July 13

09:15 - 10:30

Room B (First Floor)

Symposium: Beyond VAR: New developments in modeling psychological time series
Chair: Dr. Oisín Ryan

Inference with cross-lagged effects -- Problems in time and new interpretations
Dr. Charles Driver

Mapping modality in emotion time series
Dr. Jonas Haslbeck

Machine learning for clustering ecological momentary assessment time-series data
Ms. Mandani Ntekouli

Equilibrium causal models: Connecting dynamical systems and cross-sectional data
Dr. Oisín Ryan

Room A (Ground Floor)

Symposium: Model based approaches to detecting item level non-compliant response behavior
Chair: Mr. Patrick Schmidt

Non-compliant survey responding: An IRTree model for dynamically changing response strategies
Mrs. Viola Merhof

A Bayesian latent class approach for the detection of automated survey responses
Dr. Zachary Roman

Experimental evidence for a dynamic latent class model of non-compliance
Mr. Patrick Schmidt

An explanatory mixture IRT model for careless and insufficient effort responding in self-report measures
Ms. Esther Ulitzsch

Room C (First Floor)

Symposium: Tackling challenges in analyzing intensive longitudinal data
Chair: Ms. Sophie Berkhout

Statistical techniques for analyzing dyadic interactions
Ms. Sophie Berkhout

It's all about timing: Exploring the consequences of choosing different temporal resolutions for analyzing passive measures
Mrs. Anna Langener

Feasibility of personalized network models: Statistical power and missing data
Ms. Alessandra Mansueto

Prospectively detecting mean and variance changes through statistical process control
Ms. Evelien Schat

Assessing Bayesian fit of an Item Response Theory model for psychological time series
Mr. Sebastian Castro-Alvarez

Room D (First Floor)

Session: IRT I
Chair: Dr. Marieke van Onna

Permutation-based generalizable profile analysis for explaining DIF using item features
Dr. Jesper Tijmstra

Detection of differential item functioning using residuals from item trace lines
Mr. Youngjin Han

Proposing an EIRT approach that includes linguistic characteristics of items
Ms. Magdalen Beiting-Parrish

Agreement among DIF detection algorithms: A multiverse analysis
Dr. Veronica Cole

The gradient test in a conditional likelihood framework
Mr. Andreas Kurz

Room G (Ground Floor)

Session: Outlier Detection
Chair: Prof. Jimmy de la Torre

Two-way outlier detection for item response data
Dr. Gabriel Wallin

Forward search for IRT estimation and for atypical responses detection
Mrs. Anna Comotti

A robust item fit assessment
Dr. Ummugul Bezirhan

Person misfit and person reliability in rating scale measures: The role of response styles
Ms. Tongtong Zou

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

Room E (Second Floor)

Session: Measurement Invariance
Chair: Prof. Carolin Strobl

Bayesian Region of Measurement Equivalence (ROME) approach with alignment
Dr. Mark Hok Chio Lai

Finding clusterwise measurement invariance with mixture multigroup factor analysis
Dr. Kim De Roover

A new Bayesian method for investigating, quantifying, and visualizing measurement invariance
Mr. Miljan Jovic

A systematic review of measurement invariance research of the CES-D across gender: calculation and report of effect size
Mr. Gengrui Zhang

The effect of acquiescence bias on measurement invariance testing
Mr. Damiano D'Urso

Room F (Second Floor)

Session: Causal Inference II
Chair: Dr. Milica Miocevic

Machine learning methods for propensity score estimation in hierarchical data
Ms. Marie Salditt

Beyond the mean: A flexible framework for studying causal effects using linear models
Dr. Christian Gische

Estimating latent baseline-by-treatment interactions in statistical mediation analysis
Dr. Oscar Gonzalez

Causal inference in latent class analysis in the presence of differential item functioning
Mr. Felix Clouth

Fully latent principal stratification: combining PS with model-based measurement models
Mr. Sooyong Lee

10:30 - 10:50

Two Locations - Refer to Map: Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor)

Coffee Break

10:50 - 11:35

Room B (First Floor)

Invited Speaker: Prof. Eva Ceulemans
KCP-RS and statistical process control: Flexible tools to flag changes in time series
Chair: Dr. Silvia Bianconcini

Room A (Ground Floor)

Invited Speaker: Prof. Denny Borsboom
Network approaches to psychological constructs: A review, an evaluation, and an agenda
Chair: Dr. Mijke Rhemtulla

WEDNESDAY CONTINUED 11:40 - 12:10	Room B (First Floor)	Room A (Ground Floor)

WEDNESDAY CONTINUED 11:40 - 12:10

Room B (First Floor)

Spotlight Talk: Prof. Patricia Martinkova
Computational aspects of reliability estimation
Chair: Dr. Stefano Noventa

Room A (Ground Floor)

Spotlight Talk: Prof. Melanie Wall
Incorporating intersectionality using latent class analysis within health contexts
Chair: Prof. Steffi Pohl

12:10 - 13:40

On Your Own

Attendee Lunch

13:40 - 14:40

Room B (First Floor)

Keynote: Prof. Elizabeth Tipton
Developing an evidence-Base when treatment effects vary
Chair: Prof. Irini Moustaki

14:45 - 16:00

Room B (First Floor)

Symposium: Psychometrics for adaptive learning environments
Chair: Dr. Abe Hofman

Steering player behavior in adaptive learning environments
Dr. Abe Hofman

A decade of psychometric optimisation in Prowise Learn
Dr. Joost Kruis

Tracing students' systematic errors in large-scale online multiplication practice
Dr. Alexander Savi

Urnings: meet your digital twin
Dr. G.K.J. Maris

Room A (Ground Floor)

Session: Classification
Chair: Dr. David Torres Irribarra

Rectangular latent Markov modeling for advising students in self-learning platforms
Ms. Rosa Fabbricatore

A modified method to balance attribute coverage in CD-CAT
Dr. Chia-Ling Hsu

Evaluate the mastery of learning objectives
Dr. Anton Béguin

E-ReMI: Extended maximal interaction two-mode clustering
Dr. Alberto Cassese

Room C (First Floor)

Session: Intensive Longitudinal Data
Chair: Dr. Charles Driver

Consequences of sampling frequency for estimating dynamics in continuous time models
Mr. Rohit Batra

Dynamic conditional network models for intensive repeated data
Dr. Philippe Rast

Modelling agreement for intensive longitudinal binary data
Dr. Sophie Vanbelle

Using time-varying dynamic parameters to improve prediction of future outcomes
Ms. Simran Johal

Room D (First Floor)

Session: Factor Analysis
Chair: Dr. Shaobo Jin

Machine-learning-based factor retention – the Comparison Data Forest
Prof. David Goretzko

Rotation to sparse loadings using Lp functions
Ms. Xinyi Liu

The current state of LASSO-penalization within CML-estimation for IRT-models
Mr. Can Gürer

Matched-pair binary item response analysis using Bayesian adaptive Lasso factor model
Prof. Edward Ip

Room G (Ground Floor)

Session: Test Equating
Chair: Prof. Marie Wiberg

Data-driven direct consensus standard setting without IRT
Dr. Marieke van Onna

Parameter Identifiability of the linear equating transformation under the NEAT design
Dr. Jorge González

FDA meets IRT
Prof. James Ramsay

A framework to quantify overall errors in equated scale scores
Dr. Stella Kim

Comparing presmoothing methods for kernel equating with mixed-format tests
Mr. Joakim Wallmark

Room E (Second Floor)

Session: Bayesian Methods
Chair: Dr. Fedele Greco

Priors in Bayesian estimation under the three-parameter model
Prof. Seock-Ho Kim

Model-based missing data handling for composites with missing items
Ms. Egamaria Alacam

Bayesian prior specification and model fitting propensity
Dr. Sonja Winter

Variable selection with missing data
Prof. Sierra Bainter

Evaluating item parameter drift for Bayesian longitudinal item response theory models
Dr. Allison Boykin

Room F (Second Floor)

Session: Estimation
Chair: Prof. Alberto Maydeu-Olivares

Efficient marginal maximum likelihood estimation of longitudinal latent variable models
Dr. Björn Andersson

A deep learning approach for estimating response time models
Dr. Rudolf Debelak

Estimating and using block information in the Thurstonian IRT Model
Dr. Susanne Frick

Unbiased distribution free estimator in SEM
Dr. Han Du

WEDNESDAY CONTINUED 16:00 - 16:20	**Two Locations - Refer to Map:** Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor)
	Coffee Break

16:20 - 17:20

Room B (First Floor)

Symposium: Advanced methods to explore individual differences
Chair: Dr. Sara Garofalo and Prof. Livio Finos

Generalized Procrustes problem allows to estimate subject-specific functional connectivity in fMRI data
Ms. Angela Andreella

Unbiased methods to study interindividual variability using multilayer brain networks
Dr. Simone Di Plinio

Unsupervised and supervised learning algorithms for accurate classification of cognitive profiles
Mr. Matteo Orsoni

Room A (Ground Floor)

Symposium: New strategies for dimensionality analysis using exploratory graph analysis
Chair: Dr. Hudson Golino

Testing the structure of network communities using the total entropy fit permutation test
Dr. Hudson Golino

A Bayesian approach for dimensionality assessment in network psychometrics
Dr. Dingjing Shi

Optimizing Walktrap's community detection in networks using the total entropy fit index
Ms. Laura Jamison

Room C (First Floor)

Session: Multilevel Modelling and Factor Analysis
Chair: Dr. Matteo Farnè

Modeling cluster-level constructs with individual-level measures
Dr. Suzanne Jak

Nonparametric IRT models for two-level test data
Ms. Letty Koopman

Multilevel X-Learner: Extending meta-learners for causal inference with clustered data
Prof. Jee-Seon Kim

Room D (First Floor)

Session: IRT and Computerized Tests
Chair: Dr. Björn Andersson

A module selection between subtests for improving measurement precision in multidimensional multistage testing
Dr. Chia-Wen Chen

Matthew effects and metric distortions due to measurement model misspecification
Ms. Xiangyi Liao

Effect of matching/weighting equating samples during the pandemic
Dr. Kyoungwon Bishop

The use of factor scores in linking depression scales
Ms. Nika Zahedi

Room G (Ground Floor)

Session: Network Psychometrics
Chair: Prof. Denny Borsboom

Theories and applications of centrality measures in psychometric network analysis
Dr. Hsiu-Ting Yu

Bayesian analysis of a Markov random field for ordinal variables
Dr. Maarten Marsman

Detecting redundant items for the purpose of network modeling
Mr. Joshua Starr

Room E (Second Floor)

Session: Estimation of Latent Traits
Chair: Prof. Claus H. Carstensen

Targeting toward inferential goals in Bayesian nonparametric Rasch models
Prof. JoonHo Lee

Statistical scoring rules in person parameter inference: Some general pitfalls
Dr. Pascal Jordan

Estimation and use of ability distributions
Dr. Won-Chan Lee

Assessing students' abilities: A hybrid archetypal analysis and IRT approach
Dr. Lucio Palazzo

Room F (Second Floor)

Session: Neural Networks
Chair: Dr. Peter van Rijn

Predicting IRT 3PL parameters via a neural network model
Dr. Dmitry Belov

Deep learning generalized structured component analysis: A knowledge-based nonlinear multivariate predictive method
Mr. Gyeongcheol Cho

Improving measurement models using deep neural networks
Prof. Artur Pokropek

PowerGraph: Using neural networks and principal components to determine multivariate statistical power trade-offs
Mr. Ajinkya Mulay

17:20 - 18:40

Belmeloro Building - Refer to Map: First & Second Floor

Poster Session Reception
View the Poster List
Presenters will be standing by their posters in a casual and fun setting to include hors d'oeuvres and a cocktail reception.

Thursday • July 14

09:15 - 10:30

Room B (First Floor)

Symposium: Statistical methods for the analysis of complex data structures
Chair: Prof. Angela Montanari

Predictor selection for high-dimensional regression via random projection ensembles
Dr. Matteo Farnè

Bayesian inference for mixed models with log-transformed response
Dr. Aldo Gardini

Detecting latent variable non-normality through the generalized Hausman test
Ms. Lucia Guastadisegni

Fully symmetric graphical lasso for dependent data
Dr. Saverio Ranciati

Room A (Ground Floor)

Session: IRT II
Chair: Prof. Cees Glas

A mixture model for discriminating responses affected by response styles and content-driven preferences
Prof. Sabrina Giordano

New flexible item response models for dichotomous response with applications
Dr. Jorge Bazán

Methodological issues in the IRT modeling of recognition task data
Prof. Daniel Bolt

A dynamical framework for the derivation of cumulative response models
Dr. Yvonnick Noel

Correcting for extreme response style with IRT: Model choice matters
Mr. Martijn Schoenmakers

Room C (First Floor)

Session: Longitudinal Data
Chair: Prof. Eva Ceulemans

Difference score methods for time-varying covariates in latent transition analysis
Dr. Paul Scott

How and why apply Mokken Scaling to Longitudinal Data?
Prof. Claus H. Carstensen

Controlling for cohort effects using a latent change score model with moderators
Mr. Pablo F. Cáncer

Momentary profile similarity measures for multivariate dyadic time series
Ms. Chiara Carlier

Room D (First Floor)

Session: Computerized Based Testing
Chair: Dr. Qiwei He

Optimizing multistage adaptive testing designs for international large-scale assessments
Dr. Usama Ali

Adjusted residuals for evaluating conditional independence in IRT models for multistage adaptive testing
Dr. Peter van Rijn

Using unrestricted latent class model to estimate the density of item-score vectors: Towards a flexible computerized adaptive test
Mr. Anastasios Psychogyiopoulos

Useful and proper distractors for multiple choice items in cognitive diagnosis
Prof. Hans Friedrich Koehn

Room G (Ground Floor)

Session: Validity and Reliability
Chair: Dr. Anna Brown

Toward a Quantifiable Definition of Validity
Dr. Mijke Rhemtulla

Adjusting scores for systematic bias using additivity analysis
Dr. Joseph Grochowalski

How to estimate ICCs for interrater reliability from incomplete designs
Ms. Debby ten Hove

More on having and eating one's cake: Why modern measurement theory is a poor recipe for preparing predictive tests
Dr. Niels Smits

Resolving the test fairness paradox by reconciling predictive and measurement invariance
Dr. Safir Yousfi

Room E (Second Floor)

Session: Process Data
Chair: Dr. Dylan Molenaar

Supervised multidimensional scaling for process data
Ms. Ling Chen

Enhancing latent models of rapid-guessing with additional process data indicators
Ms. Jana Welling

Employing process-data indices to account for response biases in questionnaire data
Dr. Marek Muszyński

Bayesian joint modeling of response accuracy and real-time emotions
Prof. Yurou Wang

Room F (Second Floor)

Statistical Learning
Chair: Dr. Oscar Gonzalez

Introduce confusion matrix to model evaluation in quantitative psychology
Mr. Yongtian Cheng

A simulation study comparing the use of supervised machine learning variable selection methods in the psychological sciences
Ms. Catherine Bain

A critical view on interpretation techniques for machine learning methods
Dr. Mirka Henninger

Utilizing machine learning for simulation-based design optimization
Mr. Felix Zimmer

GeneticPower: A genetic algorithm-based framework for learning statistical power manifold
Mr. Abhishek Kumar Umrawal

10:30 - 10:50

Two Locations - Refer to Map: Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor)

Coffee Break

THURSDAY CONTINUED 10:50 - 11:35	Room B (First Floor)	Room A (Ground Floor)
	Invited Speaker: Prof. Fan Yang Wallentin **Structural equation modeling for Errors-in-variables systems** *Chair: Prof. Edward Ip*	**Invited Speaker: Prof. Paolo Giordani** **Factor analysis for multi-way data** *Chair: Dr. Qiwei He*

11:40 - 12:40	Room B (First Floor)
	Keynote: Prof. Joshua Loftus **Fair algorithms, causality, and measurement** *Chair: Prof. Jee-Seon Kim*

12:45 - 14:45	On Your Own
	Attendee Lunch

14:45 - 17:30	Belmeloro Building - Registration Area (Ground Floor)
	IMPS 2022 Group Excursion Walking Tour

Photo Courtesy of Anastasia Zhenina

Room B (First Floor)

Session: Applications I
Chair: Prof. Sabrina Giordano

Analyzing clinical scales using full information optimal scoring
Dr. Juan Li

How about … no? – Using missing responses and response times to model avoidance behavior
Mr. Nico Remmert

Conditional standard errors of measurement for math modelling assessments
Dr. Celil Ekici

Measuring digital competence internationally: Exploring test dimensionality, position effect and performance differences
Dr. Yuan-Ling Liaw

The effects of the COVID-19 pandemic on the mental health of elderly people
Prof. Francesco Scalone

Room A (Ground Floor)

Session: Latent Variable Models and Estimation
Chair: Prof. Francis Tuerlinckx

Generalised additive latent variable models for location, shape, and scale
Mr. Camilo Cardenas

A Dirichlet response model for the dual-range slider item format
Mr. Matthias Kloft

Modeling measurement error in latent space modeling
Dr. Tracy Sweet

Model implied instrumental variable approach in structural equation modeling with frequentist model averaging
Dr. Shaobo Jin

Fast estimation of generalized linear latent variable models: Thinking out of the box
Prof. Maria-Pia Victoria Feser

Room C (First Floor)

Session: Model Fit
Chair: Dr. Ting Wang

Selecting interaction effects in additive models using I-priors
Prof. Wicher Bergsma

Goodness of fit testing of SEM models in cross-validation samples
Prof. Alberto Maydeu-Olivares

Cross-validation indices for factor model scoring
Mr. Siyuan Marco Chen

Beyond Pearson's Correlation: General Association Tests for Psychological Research
Dr. Julian Karch

Testing Correlations by Using Fisher's z Transformation and Bootstrapping
Dr. Zhenqiu Lu

09:15 - 10:30

Room D (First Floor)

Session: Growth Curve Models
Chair: Prof. Vassilis Vasdekis

Performance of covariate-informed factor scores in bivariate latent growth models
Dr. Alexis Georgeson

Using bootstrap to test changes in growth curve models with non-normal data
Ms. Stefany Mena

Confidence interval of effect size measures in longitudinal growth models
Ms. Zonggui Li

Room G (Ground Floor)

Session: IRT III
Chair: Dr. Will Belzak

Effects of item specific factors on sequential/IRTree model applications
Mr. Weicong Lyu

A historical perspective on polytomous unfolding models
Ms. Ye Yuan

Analyzing spatial responses: A comparison of IRT-based approaches
Prof. Amanda Luby

Random effects and extended generalized partial credit models
Dr. David Hessen

Room E (Second Floor)

Session: Aberrant Test Behaviors
Chair: Prof. Andries van der Ark

An algorithm to detect bots in a Likert-type questionnaire
Mr. Michael John Ilagan

A statistical test for the detection of item compromise based on responses and response times
Prof. Wim J. van der Linden

Using item scores and distractors to detect test speededness
Ms. Kylie Gorney

Room F (Second Floor)

Session: Regressions Methods and Applications
Chair: Prof. Melanie Wall

Using Information-Theoretic ideas to improve the interpretation of generalized linear and nonlinear exponential family models
Prof. Jay Verkuilen

Monotonic proportional odds cumulative logit regression with ordinal predictors and an ordinal response
Prof. Christian Hennig

A global assessment of the predictive capacity of selection tests in partially observed populations
Dr. Eduardo Alarcón-Bustamante

Handling low quality responses in regression analyses: A simulation study
Dr. Nivedita Bhaktha

Bidimensional latent regression Item Response Models for the assessment of financial knowledge in presence of don't know responses
Prof. Silvia Bacci

Two Locations - Refer to Map: Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor)

10:30 - 10:50

Coffee Break

Room B (First Floor)

Session: Datathon Session
Chair: Dr. Abe Hofman

For more Datathon Session details, visit
psychometricsociety.org/imps2022-datathon

Room A (Ground Floor)

Session: SEM
Chair: Prof. Fan Yang Wallentin

Deriving expected SEM parameters when treating discrete data as continuous
Dr. Terrence Jorgensen

Accounting for uncertainty to remedy two-stage structural fit indices
Dr. Graham Rifenbark

Incorporating stability information into cross-sectional estimates
Ms. Anna Wysocki

Sensitivity analysis of weighted composites in path analysis ssing partial least squares
Dr. Ke-Hai Yuan

Room C (First Floor)

Session: Applications II
Chair: Prof. Stefania Mignani

Formalised models of handwriting as a nonverbal instrument and their psychometric properties
Dr. Yury Chernov

Continuation ratio model for polytomous Items with a censored like latent class
Dr. Diego Carrasco

The case of the cracked paintings. What cracks in paintings can tell us about their origins
Prof. Pieter M. Kroonenberg

Assessing remote proctors of high-stakes tests: Improving consistency in proctoring decisions
Dr. Will Belzak

Getting the most out of Electroretinogram (ERG) Data: A methodological review and recommended statistical and machine-learning models
Dr. Sunmee Kim

Room D (First Floor)

Session: Classification
Chair: Prof. Christian Hennig

Dependent latent class models
Mr. Jesse Bowers

MISSION: a MIxture model for Subject by Situation InteractiON in binary data
Dr. Jan Schepers

A new perspective on norming psychological tests
Prof. Andries van der Ark

Mixture multigroup SEM for comparing structural relations among many groups
Mr. Andres Felipe Perez Alonso

When almost all items are endorsed: Extreme responses or substantive classes?
Dr. David Torres Irribarra

Room G (Ground Floor)

Session: Test Equating II
Chair: Dr. Gabriel Wallin

Effect of direction of dif and group ability differences on multidimensional equating
Dr. Secil Ugurlu

Sample size calculation and optimal design for regression-based test norming
Dr. Francesco Innocenti

Evolutionary IRT scale maintenance via concurrent calibration designs
Dr. Richard Luecht

Does it matter which test scores are used when equating test scores?
Prof. Marie Wiberg

Room E (Second Floor)

Session: IRT IV
Chair: Ummugul Berzihan

"Proportions-of-total" ipsative data: Ratio or ordinal?
Dr. Anna Brown

Culture-specific faking: Adverse impact on forced-choice personality scores
Dr. HyeSun Lee

Peabody quadruplets for forced-choice items
Dr. Felipe Valentini

Measuring susceptibility with multidimensional zero-inflated and hurdle graded response models
Dr. Brooke Magnus

Application of a new multilevel item response theory model with a latent interaction effect
Dr. Tim Fabian Schaffland

Room F (Second Floor)

Session: Statistics and Psychometrics
Chair: Prof. Maria-Pia Victoria Feser

Improving psychological explanations
Dr. Noah van Dongen

Considerations in group differences in missing values
Ms. Ambar Kleinbort

The Clique Percolation performance to detect cross-loadings across latent factors
Dr. Pedro Henrique Ribeiro Santiago

Incorporating information from historical data for power analysis: A hybrid classical-Bayesian approach for multilevel studies
Ms. Winnie Wing-Yee Tse

Exploratory factor analysis trees: Detecting measurement invariance between multiple covariates
Mr. Philipp Sterner

Room B (First Floor)

Invited Speaker: Prof. Michela Battauz
Boosting methods for latent variable models
Chair: Prof. Marie Wiberg

Room A (Ground Floor)

Spotlight Talk: Dr. Jimmy de la Torre
CDMs that optimize the diagnostic value of multiple-choice data: Real data applications
Chair: Dr. Jorge Bazan

On Your Own

Attendee Lunch

FRIDAY CONTINUED **14:10 - 14:55**	Room B (First Floor) **Early Career Award: Dr. Yunxiao Chen** **Detection of item preknowledge in educational testing: Latent variable models, sequential change detection and compound decision** *Chair: Prof. Daniel Bolt*
14:55 - 15:25	Room B (First Floor) **Meeting of Members** *Chairs: Prof. Carolyn Anderson & Prof. Irini Moustaki*
15:25 - 15:45	**Two Locations - Refer to Map:** Near IMPS Registration (Ground Floor); Outside area between Buildings A & B (Ground Floor) **Coffee Break**
15:45 - 16:45	Room B (First Floor) **Presidential Address: Prof. Irini Moustaki** **Estimation methods for simple and complex psychometric models** *Chair: Prof. Carolyn Anderson*
16:45 - 17:30	Room B (First Floor) **Awards and Closing Ceremony** *Chairs: Prof. Carolyn Anderson & Prof. Irini Moustaki*
18:30 - 22:30	Palazzo Re Enzo **IMPS Closing Banquet Reception** palazzoreenzo.com Piazza del Nettuno, 1/C, 40125 Bologna BO, Italy

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