MUNI
FSS

Katedra
psychologie

„Co teď frčí v psychometrice?"

PSYB2590: ZÁKLADY PSYCHOMETRIKY | **PŘEDNÁŠKA 13**

14. 5. 2024 | HYNEK CÍGLER

ITC

Thematic line 1: **Challenges and solutions for translation**

- ◦ *„sophisticated team translation designs"; „when these differences are not relevant to the construct being measured". „State of the art neural machine translation (NMT) and adaptive machine translation"; „new advances in natural language processing (NLP) and natural language understanding (NLU)"*

Thematic line 2: **Adapting evaluation instruments to minority languages and cultures**

- ◦ *„Minority languages, spoken by a small portion of the population in a particular region, country, or territory, may face various difficulties such as discrimination, marginalization, lack of resources, and cultural assimilation."; „developing more specific and nuanced guidelines"*

Thematic line 3: **Survey research, psychometrics, and psychological assessment: Shared challenges and solutions.**

- ◦ *„bridge the gap between survey research and psychometrics"; „traditional and new pre-testing methods, administration modes, translation methods, validation methods, AI challenges, etc."; „improving inferential quality and political decision making"*

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Invited Speakers:

◦ A. von Davier: *Embracing the Future of* **Remote Proctoring***: Ensuring Test Integrity and Accessibility in the Digital Age*

◦ J. Randall: *Seeking Validity Evidence Related to* **Assessment Justice**

Invited panel:

◦ *Shared Insights and Unique Perspectives: What Can Psychological Testing and Assessment Learn from Innovations in* **Survey Research** *and Vice Versa*

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Short Courses:

- An Introduction to the **Theory of Standard Setting**.

- **Response Bias** in Self-Report Measurements.

- Introduction to **AI-based Automated Item Generation and Scoring** Practices.

- Best Practices for **Artificial-Intelligence Scoring of Constructed Responses**.

- Cross-Cultural Development and Validation of Neuropsychological Tests: **Mitigating Cultural Bias**.

- Questionnaire translation/adaptation: On ensuring **equivalence in cross-cultural research**.

- A Critical Quantitative measurement perspective: **MIMIC models** to identify and remediate **racial (and other) forms of bias**.

- **Cognitive Diagnosis Modeling**: Introduction, Recent Developments, and Implementation in R.

- **Sequence Mining Methods** on Process Data in Large-Scale Assessments.

- Solving the problems of **ipsative data**: Designing and scoring forced-choice and other questionnaires in comparative format.

SAVE THE DATE:
IMPS*2024

Prague, Czech Republic
July 16-19, 2024 • Short Courses July 15

Conference Location:
Prague University of Economics and Business
Prague, Czechia

More details:
psychometricsociety.org/annual-meeting

Planning Committee Chair:
David Kaplan, Ph.D. (2024 IMPS President)
Patricia Busk Professor of Quantitative Methods
Department of Educational Psychology
University of Wisconsin - Madison
Madison, WI, United States

Local Host Committee Chair:
Patrícia Martinková, Ph.D.
Vice-Chair of the Department of Statistical Modelling
Institute of Computer Science, Czech Academy of Sciences
Associate Prof. of Educational Sciences, Charles University
Prague, Czechia

IMPS 2024

- G. Cho: **Constructs May or May Not Be Latent**: Studies on Two Domains of Structural Equation Modeling
- D.P. MacKinnon: The Investigation of **Mediating Processes** as a Measurement Challenge
- M. Marsman: From **Network Psychometrics** to Bayesian Graphical Modeling
- A.E.Raftery: Statistical Inference with **Model Uncertainty**
- D. Thissen: A Selective Intellectual History of **Differential Item Functioning Analysis** in Item Response Theory and **Factorial Invariance** in Factor Analysis
- D. Kaplan: On Methods for Estimating the Pace of Progress to the United Nations Education **Sustainable Development** Targets
- M. Bolsinova: Rating systems for measurement in **adaptive learning systems**: Challenges and solutions
- E. Fried: Building bridges between **Psychometrics Island and Psychology Mainland**
- P.F. Halpin: Using robust scaling to address **DIF and DTF** in latent variable models
- P. Martinková: **Computational Aspects** of Psychometric Methods and Beyond
- C. Proust-Lima: **Continuous-time latent variable modeling** of measurement scales in health studies: Applications to the Multiple-System Atrophy progression
- E. Ulitzsch: Confirmatory mixture models for investigating contextual correlates of response behavior in **ecological momentary assessments**

IMPS 2024

Short Courses:
- *Tools of **Machine Learning** in Psychometrics*
- *Structural Equation Models for Categorical Outcomes Using **lavaan***
- *Planning and Conducting **Simulation Studies** in R*
- *Computerized Adaptive Testing and **Multistage Testing** with R*

Co tedy frčí v psychometrice a testování?

Překlady, adaptace, ekvivalence napříč kontexty.

Férovost, konsekvenční validita.

CAT, online testování, praktické otázky spojené s LSA.

AI: Tvorba položek + skórování otevřených položek.

Statistické metody (velmi).
◦ Big data, EMA, a časové řady.
◦ DIF, invariance.
◦ CDM, mixture modely a další proprietární témeta.

Epistemologické a teoretické otázky o měření.