

THE DEPARTMENT OF EDUCATIONAL PSYCHOLOGY'S RESEARCH METHODS,
MEASUREMENT, & EVALUATION (RMME) PROGRAMS AND THE DEPARTMENT OF
STATISTICS AT THE UNIVERSITY OF CONNECTICUT PRESENT:

SOME RECENT DEVELOPMENTS IN EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT

DR. ZHILIANG YING, COLUMBIA UNIVERSITY

Measurement theory plays a foundational role in educational and psychological assessment. Classical item response theory (IRT) models are widely used in the design and analysis of educational tests and psychological surveys that involve multiple choice questions. In this talk, we will first discuss some recent progress related to variations and extensions of the classical IRT model-based methods. We will then turn to the modeling and analysis of process data arising from complex problem-solving items, which are increasingly being adopted in large scale educational assessment. New developments, including statistical models and machine learning algorithms, will be presented. Examples from educational testing and psychological assessment will be used for illustration.



Dr. Zhiliang Ying is a Professor and Director of Graduate Studies in Statistics at Columbia University. He received his PhD in Statistics from Columbia University in 1987. He is also the chief co-editor of *Statistica Sinica* and associate editor of *Bernoulli*. His research interests include survival analysis, latent variable models, sequential analysis, longitudinal data analysis, stochastic processes, semiparametric inference, and their applications in health sciences, educational and psychological assessments, and finance. He has authored more than fifty articles in a wide variety of journals, such as: *Biometrika*; *The Annals of Statistics*; *The Journal of the American Statistical Association*; *Applied Psychological Measurement*; *Psychometrika*; and *The Journal of the Royal Statistical Society*.

Colloquium Access Information:

Friday, 03/29/2024, 11am ET

In-Person: AUST 202

Virtual: <https://tinyurl.com/rmme-Ying>

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