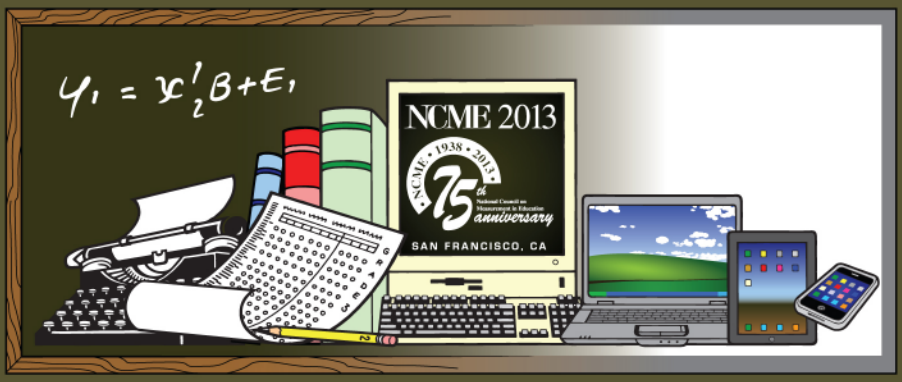
NCME

national council on measurement in education



2013 Program

Training Sessions
April 26-27

Annual Meeting
April 28-30

InterContinental Hotel
San Francisco, California

NCME national council on measurement in education

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2013 Training Sessions
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InterContinental Hotel
San Francisco, California

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NCME Information Desk

The NCME Information Desk is located at the InterContinental Hotel. Stop by to pick up a ribbon or obtain your bib number for the fun run and walk. It will be staffed at the following times:

Portrero Hill (4th Floor)
- Friday, April 26 ..... 7:30 a.m.–4:30 p.m.

Grand Ballroom Foyer (3rd Floor)
- Saturday, April 27 ..... 7:30 a.m.–4:30 p.m.
- Sunday, April 28 ..... 10:00 a.m.–4:30 p.m.
- Monday, April 29 ..... 8:00 a.m.–4:30 p.m.
- Tuesday, April 30 ..... 8:00 a.m.–1:00 p.m.

Proposal Reviewers

Abrams, David
Alade, Oluwatomi
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Attali, Yigal
Ayers, Elizabeth
Babcock, Ben
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Skúlason, Sigurgrímur
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Williams-Lasley, Chastity
Winter, Phoebe
Wise, Steven
Wollack, James
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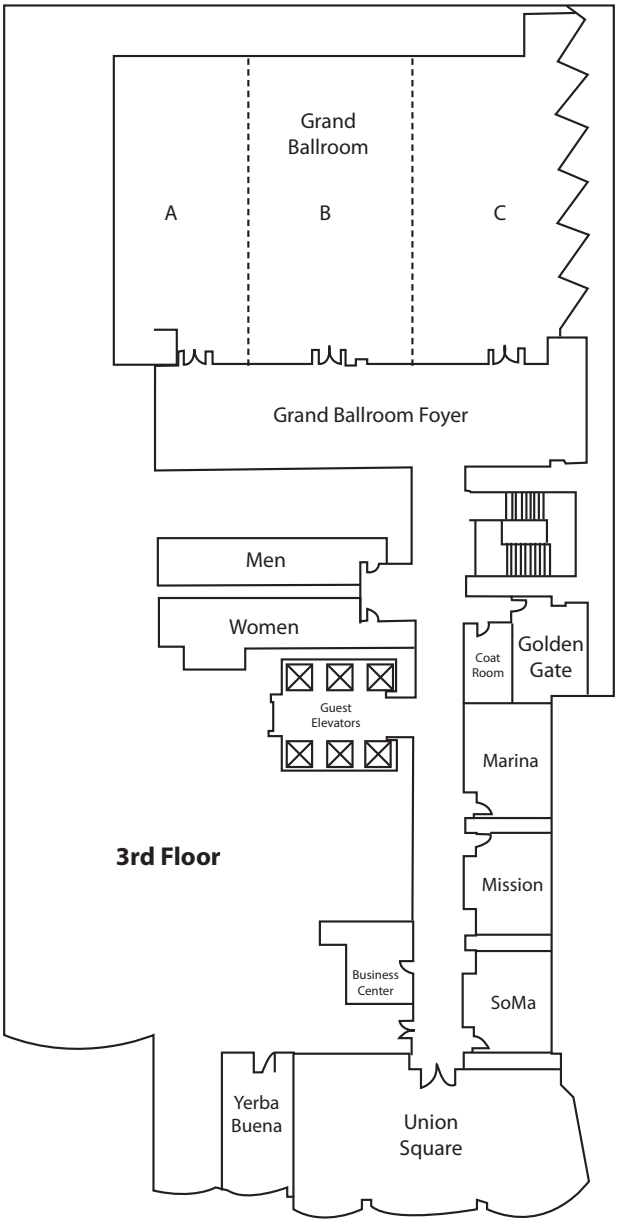
Wood, Scott
Wu, Meng
Wyse, Adam
Xiang, Yun
Xiong, Xinhui
Xu, Jing-Ru
Xu, Xueli
Yang, Ji Seung
Yang, Zhiming
Yel, Nedim
Yen, Shu Jing
Yi, Qing
Yin, Liqun
Yoo, Hanwook
Young, John
Zenisky, April
Zhang, Honglian
Zhang, Jinming
Zhang, Liru
Zhang, Litong
Zhang, Mengyao
Zhang, Mo
Zhang, Ou
Zhang, Yanwei (Oliver)
Zhang, Yu
Zhao, Fei
Zhao, Huafang
Zhao, Jishen
Zheng, Chanin
Zheng, Yi
Zhu, Rongchun
Zu, Jiyun

Future Annual Meetings

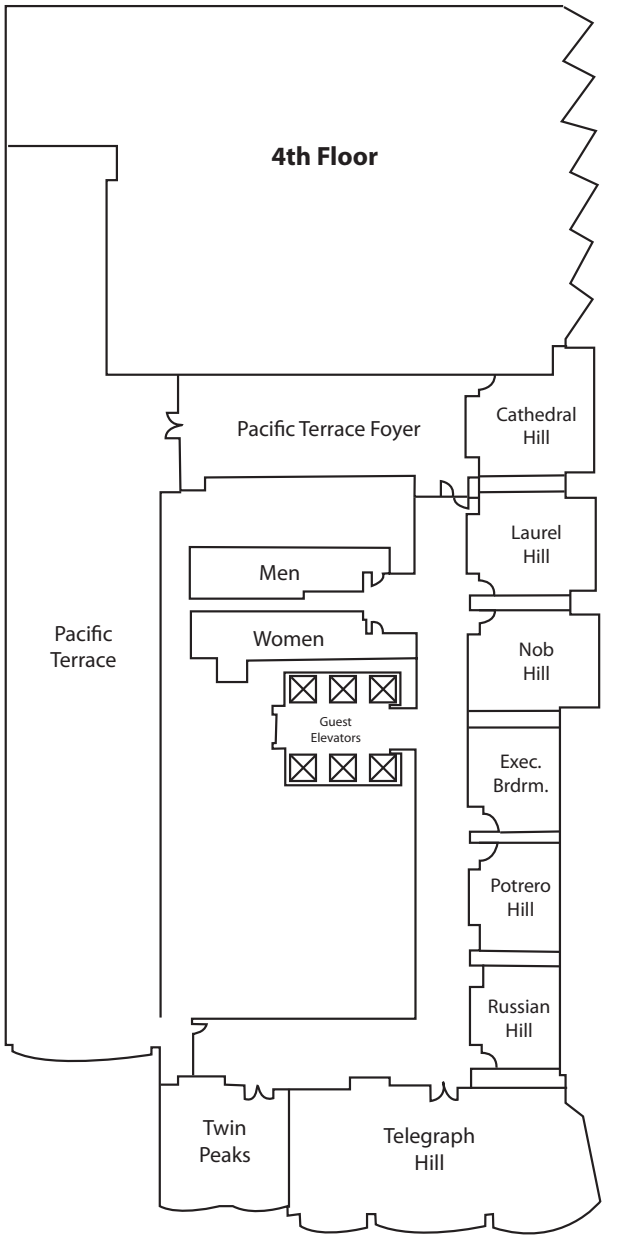
2014 Annual Meeting
April 2–6
Philadelphia, Pennsylvania

2015 Annual Meeting
April 15–19
Chicago, Illinois

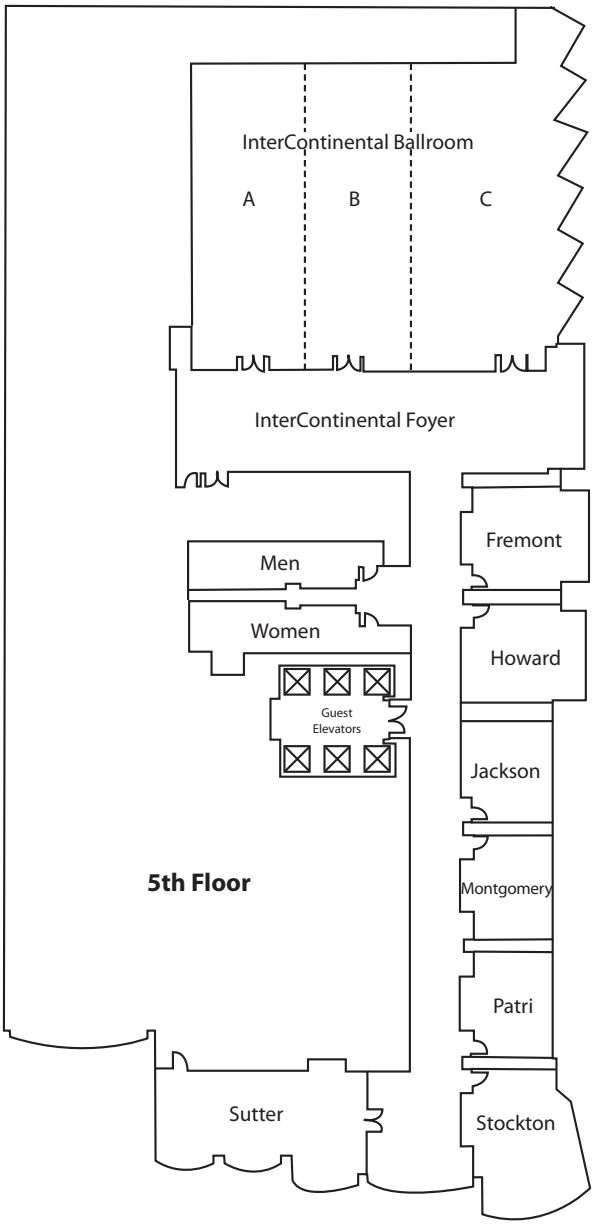
Hotel Map - 3rd Floor



Hotel Map - 4th Floor



Hotel Map - 5th Floor



Pre-Conference Training Sessions

The 2013 NCME pre-conference training sessions will be held at the InterContinental Hotel on Friday, April 26, and Saturday, April 27. All full-day sessions will be held from 8:00 a.m. to 5:00 p.m. All half-day morning sessions will be held from 8:00 a.m. to 12:00 noon. All half-day afternoon sessions will run from 1:00 p.m. to 5:00 p.m.

On-site registration for the pre-conference training sessions will be available at the NCME Information Desk at the InterContinental Hotel for those workshops that still have availability.

Four of our training sessions will be webcast live to over 25 sites around the world. Several sessions were webcast last year and were very well received. We are happy to be able to try to improve and expand on this NCME initiative.

Please note that internet connectivity will not be available for most training sessions and, where applicable, participants should download the software required prior to the training sessions. Internet connectivity will be available for a few selected training sessions that have pre-paid an additional fee.

*Indicates that the training session will be webcast live to several international sites.

Friday, April 26
8:00 a.m.–5:00 p.m., Sutter, 5th Floor, AA

Generalizability Theory and Applications

Robert Brennan, University of Iowa, Won-Chan Lee, University of Iowa

Generalizability theory liberalizes and extends classical test theory. In particular, generalizability theory enables an investigator to disentangle multiple sources of error through the application of analysis of variance procedures to assess the dependability of measurements.

The primary goals of this training session are to enable participants to understand the basic principles of generalizability theory, to conduct relatively straightforward generalizability analyses, and to interpret and use the results of such analyses. Mathematical and statistical foundations will be treated only minimally. Major emphasis will be placed upon quickly enabling participants to conduct and interpret relatively straightforward generalizability analyses, then more complicated ones. Examples will include various types of performance assessments. Prerequisites include knowledge equivalent to one course in educational measurement and familiarity with ANOVA at an introductory level. *Generalizability Theory,* a book written by the director, will be distributed to participants. Computer programs for performing generalizability analyses will be discussed and illustrated. Participants should bring laptops and a hand calculator.

Intended Audience

The targeted audience is principally upper-level graduate students and new PhD's with interest in learning about and applying generalizability theory in practical contexts. Such persons are often new faculty members or members of (or persons who plan to pursue careers in) testing organizations, organizations concerned with small- and large-scale evaluations, or state and federal agencies concentrating on assessment procedures.

As minimal prerequisites for attendance, participants should have one course in measurement and some familiarity with analysis of variance, at least at the level treated in introductory graduate statistics courses in education or psychology.

Friday, April 26
8:00 a.m.–5:00 p.m., Twin Peaks, 4th Floor, BB

Language in Assessment—Approaches for Distinguishing Between and Addressing Construct-Relevant and Construct-Irrelevant Language to Facilitate Assessment and Related Instruction of the Language of Rigorous Academic Content

Edynn Sato, WestEd

For English learners (ELs) and non-ELs who fail to achieve proficiency on state ELA assessments, language can be a construct-irrelevant factor that interferes with student performance on academic content assessments and negatively impacts the valid interpretation of test results. Consequently, uses of test results for instructional and accountability purposes could fall short of the goal of improving these learners' academic achievement. Given our heightened accountability context for students, teachers, and schools, measurement professionals, educators of students developing proficiency in English, and policy makers wanting to ensure fair, inclusive, and valid student measures, are challenged with appropriately distinguishing between and addressing construct-irrelevant language and the language students need to master academic content and succeed in college and careers (academic English language).

This session is an extension of the session presented last year on construct-relevant and construct-irrelevant language (academic language and linguistic modification strategies). In this session, trainers will bridge research and practice, and within a framework of ensuring correspondence between English language proficiency (ELP) knowledge, skills, and abilities and content area-related language and literacy, trainers will focus on the practical applications and research-supported strategies to distinguish between and address construct-relevant and construct-irrelevant language in assessment (formative, interim, summative) and aligned instruction. Measurement professionals, educators of EL students, as well as educators of non-EL students who struggle with academic language, and graduate students interested in language issues in assessment are encouraged to participate. Participation in last year's session is not a prerequisite for participation in this session.

Intended Audience

The intended audience is measurement professionals working to develop valid assessments (e.g., researchers, test developers), educators of students developing proficiency in English, policymakers wanting to ensure fair, inclusive, and valid student measures, and graduate students interested in test development and language issues in assessment. The information presented will be applicable to those engaged in/interested in summative assessment, as well as formative assessment practices.

Friday, April 26
8:00 a.m.–5:00 p.m., Nob Hill, 4th Floor, CC

Diagnostic Measurement: Theory, Methods, and Applications

Jonathan Templin, University of Georgia, Laine Bradshaw, James Madison University

Diagnostic measurement is an emerging field of psychometrics, focused on ascertaining actionable information from tests and assessments. This workshop provides an introduction to the terms, techniques, and common methods used for diagnosing what students know, giving researchers access to a wealth of information that can be used to help design remediation paths for students needing help in a subject area. The course is taught from a semi-technical level, although participants are expected to have only a basic knowledge of statistics and psychometrics to enroll. Participants will be given the opportunities to gain hands-on experience with all aspects of diagnostic models (from test construction to statistical estimation), which is better facilitated by the use of participants' personal laptop computers.

Intended Audience

The target audience members are educational researchers and practitioners who are seeking to better evaluate what students know through the use of tests and assessments. This training session is appropriate for graduate students, researchers, and practitioners at the emerging or experienced level. Participants are expected to have only a basic knowledge of statistics and psychometrics to enroll.

Friday, April 26
8:00 a.m.–5:00 p.m., Cathedral Hill, 4th Floor, DD

Multidimensional Item Response Theory: Theory and Applications and BMIRT, LinkMIRT, and SimuMIRT Software

Lihua Yao, Defense Manpower Data Center, Mark Reckase, Michigan State University, Yuan Hong, American Institutes for Research, Ying Cheng, University of Notre Dame

Theories and applications of multidimensional item response theory model (MIRT) and MIRT linking are discussed. Software BMIRT, LinkMIRT, and SimuMIRT are demonstrated. BMIRT (Yao, 2003) is a computer program that uses the Markov Chain Monte Carlo (MCMC) method to estimate item and ability parameters in the multidimensional multi-group IRT framework; exploratory and confirmatory approaches are supported. LinkMIRT (Yao, 2004) is a linking software that links two sets of item parameters onto the same scale in the MIRT frame work. SimuMIRT is software that simulates data for various MIRT models.

This session is intended for researchers who are interested in learning and understanding MIRT and MIRT linking and their applications and who are working with dichotomous or polytomous data that is multidimensional in nature. BMIRT supports the three-parameter logistic model, generalized two-parameter partial credit model, graded-response, rater model, and testlet-effect models.

The book *Multidimensional Item Response Theory* by Reckase will be provided at the workshop. Data requirements and formats, and sample data and input files will be provided to participants prior to the workshop; participants are required to go to www.BMIRT.com to download software into the laptop computers that they are required to bring to the workshop.

Intended Audience
This session is intended for upper-level graduate students, testing professionals, and researchers, who are interested in learning MIRT, MIRT linking, and its applications, and who are working with dichotomous or polytomous data that are multidimensional in nature.

Friday, April 26
8:00 a.m.–12:00 noon, Laurel Hill, 4th Floor, EE

NCME's Got Talent! How to Write, Present, and Tweet Like a Star

Ronald Dietel, University of California, Los Angeles, W. James Popham, University of California, Los Angeles, H.D. Hoover, University of Iowa, Barbara McKenna, Stanford Center for Opportunity Policy in Education

This fun and informative training session will help participants develop a comprehensive plan for communicating their measurement-related work through presentations, publications, social media, and working with reporters. Superhero communicators, W. James Popham and H. D. Hoover will team up with veteran communicators Ron Dietel and Barbara McKenna in a lively, hands-on format. Using their best "Dancing with the Stars" judging criteria, Popham, Hoover, Dietel, and McKenna will share communications strategies and provide constructive critiques of participants' mini-presentations, writing samples, or any communications-related product. Materials supporting this session including a communications guidebook are available now at https://communicateresearch.wordpress.com/. Participants should bring at least one sample product such as a research paper, dissertation, magazine article, blog, or mini-presentation for hands-on practice and friendly critique.

Intended Audience
Any researcher, measurement expert, graduate student, or practitioner interested in selecting high-impact media and improving their communication skills.

Friday, April 26
8:00 a.m.–12:00 noon, Telegraph Hill, 4th Floor, FF, Webcast

An Introduction to R for Teachers of Quantitative Methods*

Jessalyn Smith, CTB/McGraw-Hill, Brian Habing, University of South Carolina

The free statistical package R has become a favorite of researchers over the past decade – and is now increasingly used in teaching methods courses at all levels. With you working along through each step with us, this course will cover some of the most useful aspects of R, with a focus on using it to teach statistical methods. The session begins with an introduction to the language (including data management, graphing, and statistical analysis) as could be done for a methods class with no previous experience. The second portion covers R's implementation of the methods from a two course quantitative sequence with selected advanced methods (including an overview of appropriate packages and some useful custom made functions). The final portion examines R's use for conducting classroom simulations to demonstrate concepts such as coverage probabilities and robustness. This course is designed for those who have taught (or expect to teach) courses in quantitative methods but have no previous experience with R. Participants must bring their own laptop computer; all required software will be provided.

Intended Audience
Current or future instructors of quantitative methods courses (such as the two semester introductory quantitative sequence or the introductory course in measurement).

Friday, April 26
1:00 p.m.–5:00 p.m., Telegraph Hill, 4th Floor, GG, Webcast

An Overview of Psychometric Work in Real World*

JongPil Kim, ACT, Inc., Laura Kramer, University of Kansas, Tim Moses, Educational Testing Service, Hyeonjoo Oh, Educational Testing Service, Ye Tong, Pearson

An overview of the psychometric work routinely done at various testing organizations will be presented in this training session. The training session will focus on the following topics: (1) outline of operational psychometric activities across different testing companies, (2) hands-on activities to review item and test analyses output, (3) hands-on activities to review equating output, and (4) discussion session regarding factors that affect operational psychometric activities such as testing mode comparability (paper and pencil test vs. computer based test) and field test design and test construction when a new assessment is introduced. We are hoping that through this training session, participants will get a glimpse of the entire operational cycle, as well as gain some understanding of the challenges and practical constraints that psychometricians face at testing organizations. It is targeted toward advanced graduate students who are majoring in psychometrics and seeking a job in a testing organization and new measurement professionals who are interested in an overview of the entire operational testing cycle. Representatives from major testing organizations (e.g., ACT, Inc., Educational Testing Service, and Pearson) and University research center developing large-scale assessments will present various topics related to processes in an operational cycle.

Intended Audience

1. Advanced graduate students who are majoring in psychometrics and seeking a job at the testing company.
2. Entry or junior level psychometricians who conduct operational work such as item analysis, smoothing, and equating, and pass on the analyses results to clients.
3. Representatives from small- and large-scale assessment agencies and district, state or federal agencies concentrating on assessment procedures.

Friday, April 26
1:00 p.m.–5:00 p.m., Laurel Hill, 4th Floor, HH

IRT-Based Test Linking in R

Jonathan Weeks, Educational Testing Service, Benjamin Domingue, University of Colorado, Boulder

IRT-based linking methods are widely used to place the results from two or more tests onto a common scale. With the increased use of R for psychometric analyses there is growing interest in using the software for test linking. This session will be conducted as a highly interactive lecture combined with hands-on data analysis in two parts. The first part will provide an overview of unidimensional test linking within an IRT framework including a discussion of terminology, linking designs, fundamental equations, properties/assumptions, and calibration methods. The second part will focus on the implementation of separate calibration methods in R using the plink package. Participants will learn how to import item/ability parameters from commonly used IRT estimation software, conduct the linking for two or more tests, and interpret results. Examples will be presented using a step-by-step approach with single-format and mixed-format tests.

Intended Audience

This session is intended for upper-level graduate students, testing professionals, and others interested in IRT-based test linking. Participants should have some understanding of item response theory and should be familiar with R (extensive programming experience is not assumed).

Saturday, April 27
8:00 a.m.–5:00 p.m., Twin Peaks, 4th Floor, II

Bayesian Networks in Educational Assessment

Duanli Yan, Educational Testing Service, Russell Almond, Florida State University, Robert Mislevy, Educational Testing Service, David Williamson, Educational Testing Service

The Bayesian paradigm provides a convenient mathematical system for reasoning about evidence. Bayesian networks provide a graphical language for describing complex systems, and reasoning about evidence in complex models. This allows assessment designers to build scoring that have fidelity to cognitive theories about the domain and yet are mathematically tractable and can be refined with observational data. Topics covered in this tutorial are evidence-centered assessment design, basic Bayesian network representations and computations, available software for manipulating Bayesian networks, refining Bayesian networks using data, and example systems using Bayesian networks. It is recommended that participants bring a laptop to run sample exercises using Netica (http://www.norsys.com/).

Intended Audience
People interested in educational measurement.

Saturday, April 27
8:00 a.m.–12:00 noon, Nob Hill, 4th Floor, JJ

A Practitioner's Guide to Growth Models

Katherine Furgol Castellano, University of California, Berkeley, Andrew D. Ho, Harvard Graduate School of Education

Growth models use longitudinal student test score data to support inferences about student learning, educator effectiveness, and large-scale educational progress. In educational accountability systems, growth models have become increasingly complex, combining statistical models with calculations motivated by policy decisions. As the stakes on growth models rise, so does the importance of understanding their intricacies.

This training session reviews and compares seven popular growth models—including gain-based models, categorical models, projection models, and Student Growth Percentiles—by answering six critical questions for each model. These questions help to identify, for example, the primary interpretations each growth model supports, the data requirements of each model, and possible unintended consequences of using each model in an accountability system.

By the end of the session, participants should be able to articulate contrasts between popular growth models as well as actively compare growth model results using real datasets in Excel and/ or R. The materials will include the co-presenters' publication, *A Practitioner's Guide to Growth Models*, which is included as part of the fee for the session.

Intended Audience
This training session is intended for two primary audiences. The first consists of federal, state, or local education officers responsible for selecting, interpreting, estimating, and/or reporting growth model results. The second consists of researchers, including graduate students, interested in learning and developing a common framework for growth models with an emphasis on policy-relevant contrasts. Another possible audience includes those interested in conducting a course or instructional unit on growth models. Experience with simple linear regression and Excel is strongly recommended but not required. Although some session examples will use R, prior experience with R is not necessary.

Saturday, April 27
8:00 a.m.–12:00 noon, Union Square, 3rd Floor, KK, Webcast

Using Visual Displays to Inform Assessment Design and Development*

Brett P. Foley, Alpine Testing Solutions, Chad W. Buckendahl, Alpine Testing Solutions

The development of an assessment program draws on the expertise of testing professionals for procedural guidance and the knowledge and judgment of subject matter experts (SMEs) who are familiar with the content and testing population of interest. In addition to development, consumers of test results (e.g., students, parents, candidates, policymakers, public), rely on score reports and related documentation to help interpret test scores. In this workshop, we illustrate how visual displays can help inform steps of the test development and validation process, from program design to item writing and review to communicating results through score reporting. Relevant examples of visual displays are provided for various development activities in a range of testing settings (e.g., education, licensure, certification).

Presenters will provide step-by-step instruction on how to create the various displays using readily available software. Participants should bring a laptop or similar device loaded with Microsoft Excel (2010 version highly recommended). Panelists will receive flash drives with Excel files and instructions for creating and adapting the visuals discussed in the workshop.

Intended Audience
Assessment developers, users, and consumers interested in using visual displays in assessment design and development who have basic experience using Microsoft Excel.

Saturday, April 27
8:00 a.m.–12:00 noon, Laurel Hill, 4th Floor, LL

Advice for Graduate Students on Making the Most of Graduate School, Obtaining a Job and Starting a Career

Deborah Harris, ACT, Inc., Nathan Wall, eMetric, Xin Li, ACT, Inc.

This session is designed to assist graduate students in measurement programs in completing their degrees and entering the profession, by addressing frequently asked questions. It is designed to provide a diversity of advice and viewpoints, including how to prepare for a job in the changing next-generation-of-assessments environment, including the emphasis on more innovative applications of measurement, working remotely, and the increasing role technology is playing in assessment.

Intended Audience

The training session is targeted towards graduate students in measurement who have questions in such areas as: where jobs are available (e.g., school districts, state departments, SAS, Office of Opinion Research, etc.); what types of things employers look for in application materials; what types of questions might be asked of an interviewee; what types of questions should an interviewee ask; what are possible dissertation topics; etc.

Saturday, April 27
8:00 a.m.–12:00 noon, Sutter, 5th Floor, MM

Item Response Theory, Linking and Equating With jMetrik

J. Patrick Meyer III, University of Virginia, Emily Hailey, University of Virginia, Xiaoxin Wei, University of Virginia

jMetrik is a free and open source software application that combines a variety of psychometric procedures into a single program. It features a user-friendly point-and-click interface, an integrated database for managing large numbers of data files, and a variety of statistical methods. Item response theory related features include nonparametric item characteristic curve estimation; Rasch, partial credit, and rating scale model parameter estimation; moment and characteristic curve IRT linking methods for mixed format tests (e.g., linking with 3PL and GPCM items); and IRT true score equating. As a pure Java application, it runs on windows, Linux, or Mac OSX operating systems using either 32- or 64-bit processors.

Participants will learn to use jMetrik version 3 for item response theory, linking, and equating. They will also learn to check model fit and evaluate item parameter drift using jMetrik. Psychometric procedures will be reviewed and details of their implementation in jMetrik will be described. Participants should bring a laptop computer with a USB outlet or disk drive. Data files will be available but participants are encouraged to bring their own data in a comma delimited format. Software may be downloaded and installed prior to the session. jMetrik is available for free from www.ItemAnalysis.com.

Intended Audience
Psychometricians, measurement practitioners, and graduate students.

Saturday, April 27
8:00 a.m.–12:00 noon, Telegraph Hill, 4th Floor, NN

Vertical Scaling Methodologies, Applications, and Research

Ye Tong, Pearson, Michael Kolen, University of Iowa

The potential need for constructing a vertical scale arises whenever a testing program has multiple grade levels and wishes to have a common scale to compare test scores across these grade levels. Vertical scaling uses statistical process to place test scores that measure similar content domain but at different educational levels onto a common scale. The goals of the session are for attendees to be able to understand the principles of vertical scaling, to conduct vertical scaling and to interpret the results of vertical scaling in reasonable ways. Vertical scaling will be contrasted with related equating and linking processes. Traditional and IRT vertical linking methodologies will be described and practical issues will be discussed. With most states adopting the common core state standards, with such well vertically articulated standards across grades, there is renewed interest in developing vertical scales and how their use may impact growth interpretations.

The focus is on developing a conceptual understanding of vertical scaling through numerical examples and discussion of practical issues. Importance and challenges related to vertical scaling will be included. The text for the session is a chapter in the second edition of Kolen and Brennan's (2004) *Test Equating, Scaling, and Linking: Methods and Practices*. The session is designed for upper level graduate students, new PhD's, testing professionals with operational or oversight responsibility for vertical scaling, and others with interest in learning about vertical scaling methods and practices.

Participants should have at least two graduate courses in measurement and two graduate courses in statistics.

Intended Audience

The targeted audience is upper-level graduate students and new PhD's with interest in learning about vertical scaling methodology and practice. Such persons are often new faculty members or members of testing organizations, organizations concerned with small- and large-scale evaluations, or state and federal agencies concentrating on assessment procedures. In addition, testing professionals with operational or oversight responsibility for vertical scaling, and others with interest in learning about vertical scaling methods and practices could likely benefit from this session.

Saturday, April 27
1:00 p.m.–5:00 p.m., Telegraph Hill, 4th Floor, OO

Setting Cut Scores on 21st Century Tests

Michael Bunch, Measurement Incorporated

American students will soon face tests that are more rigorous, based on common standards, and focused on college and career readiness. This pre-session explores the changes in standard setting these new assessments will prompt.

Module 1: Introduction – This module provides an overview of the need to rethink how we do standard setting in light of impending changes in the nature of high-stakes testing that is focused on college and career readiness.

Module 2: Planning – This module presents an array of potential stakeholders and scenarios which the standard setter must take into account in planning not only standard setting but the tests themselves.

Module 3: Implementation – Using real and simulated data sets, participants will manipulate assumptions, data resources, and other variables and see their impact on cut scores.

Module 4: Follow-up – This module provides an overview of activities participants will need to carry out after initial standard setting in order to validate, modify, and re-establish cut scores after initial standard setting.

Intended Audience
Practitioners and advanced graduate students.

Saturday, April 27
1:00 p.m.–5:00 p.m., Nob Hill, 4th Floor, PP

An Introduction to the Measurement and Analysis of Video Game Interaction Data

Greg Chung, University of California, Los Angeles, Rebecca Buschang, University of California, Los Angeles, Deirdre Kerr, University of California, Los Angeles, Danny Parks, University of California, Los Angeles

Participants will be introduced to the analysis of video game data with a focus on deriving meaningful measures from player interaction data. A learning game developed specifically to teach fraction concepts will be used throughout the training session to provide hands-on play experience and cognitive demands analysis, a real-world example for data analyses and mining, and a context for software instrumentation best practices. This session will be of interest to researchers and designers with an interest in making games usable for measurement purposes.

The training session will be divided into three parts. Part I: Extracting meaningful events and measures from gameplay with hands-on experience with the critical analytical process involved in the identification of important events and the derivation of measures. Part II: Approaches to the analyses of gameplay data will focus on data mining approaches that can be used to make sense of gameplay data. Part III: Rolling your own: Best practices from a game developer's perspective will provide a software development on how to instrument games to capture meaningful events.

Intended Audience
The training workshop is designed for people interested in analyzing gameplay data but who have had little or no experience with such analyses.

Saturday, April 27
1:00 p.m.–5:00 p.m., Sutter, 5th Floor, QQ

Application of Evidence-Centered Design (ECD) in Large-Scale Assessment

Amy Hendrickson, The College Board, Kristen Huff, Regents Research Fund New York, Pamela Kaliski, The College Board, Sheryl Packman, Gator Analytics, LLC, Maureen Ewing, The College Board

The cornerstone of evidence-centered assessment design (ECD) is an evidentiary argument that requires that each target of measurement (e.g., learning goal) for an assessment be expressed as a claim to be made about an examinee that is relevant to the specific purpose and audience(s) for the assessment. The observable evidence required to warrant each claim is also articulated. In turn, the claims and evidence shape the design of assessment opportunities for students to demonstrate what they have learned, whether that opportunity is a classroom activity or a multiple-choice item on a high-stakes assessment. Once identified, the characteristics of these assessment opportunities are referred to as task models, each capable of generating multiple assessment tasks. Taken together, the claims, evidence, and task models constitute the evidentiary argument. Given the conference theme, "Building on the Past, Reaching for the Future: Innovative Ideas for NextGen Assessments," the session will highlight how ECD can be used to design innovative assessments and strengthen the validity argument for score interpretation.

Intended Audience
Measurement professionals and graduate students interested in test design, item writing and/or design-based validation argument.

Saturday, April 27
1:00 p.m.–5:00 p.m., Laurel Hill, 4th Floor, RR

Introduction to the Multidimensional Adaptive Testing Environment (MATE): Test Specification, Simulation Studies, and Operational Testing

Andreas Frey, Friedrich-Schiller-University Jena, Ulf Kröhne, DIPF – German Institute for International Educational Research

Unidimensional computerized adaptive testing (UCAT) was generalized to multidimensional adaptive testing (MAT) in the 1990s. Despite obvious advantages compared to UCAT, practical applications of MAT are still rare. Most likely, the application of MAT is hindered by a lack of appropriate software. To overcome this problem, the recently developed Multidimensional Adaptive Testing Environment (MATE) combines capabilities for simulating multidimensional adaptive tests with the functionality to administer them. MATE allows for an automated import of graphical item material as well as item parameters and offers multiple options to specify test administrations (e.g., MIRT/IRTmodel, item selection, content balancing, exposure control, ability estimation, and test termination). Additionally, simulation studies can also be conducted with MATE. The training session gives an overview of the psychometrics behind multidimensional adaptive testing and its implementation with MATE. After having attended the training session, the participants will be able to use MATE to assemble and administer MATs. The training session includes extensive hands-on sections based on a real item pool or—if available—own items of the participants.

Intended Audience
Measurement practitioners, graduate students, and educational researchers with an interest in using multidimensional adaptive tests.

Saturday, April 27
1:00 p.m.–5:00 p.m., Union Square, 3rd Floor, SS, Webcast

A Crash Course in Hot Topics in Large Scale Assessment*

Steve Ferrara, Pearson, Randy Bennett, Educational Testing Service, Derek Briggs, University of Colorado, Boulder, Wayne Camara, The College Board

Performance Assessment (presented by Dr. Ferrara): The presenter will demonstrate the wide range of approaches to performance assessment used in educational, workplace, and licensure and certification testing. He will present the Framework of Approaches to Performance Assessment, a web-based, interactive site and present examples in the seven categories of approaches to performance assessment. He will touch on important issues in design, development, use, and validation of performance assessments in large scale summative and classroom formative assessment.

Automated Scoring (presented by Dr. Bennett): This talk will cover basic ideas and issues in automated scoring and in the validation of scores produced by such systems (with particular focus on automated essay scoring). An overview of the types of tasks automated systems have been developed to target and of (known) commonly used methods will be presented. Suggestions for the implementation of automated scoring in consequential testing programs will be offered.

Measure of College and Career Readiness (presented by Dr. Camara): College and career readiness are increasingly the focus of state accountability tests and require a unique validation argument because they focus on a predictive relationship. Such assessments need to demonstrate a strong alignment with the KSAs required for success in post-secondary success such as the Common Core State Standards, include a vertical scale or other growth measure that tracks student growth over time, and performance levels and descriptors. Finally, external statistical data is essential in supporting a validation argument given the intended purpose of assessments is tied to future success.

Growth and Value Added Modeling (presented by Dr. Briggs): In this session participants will learn key similarities and differences between growth models, where the purpose is to facilitate inferences about students, and value-added models, where the purpose is to facilitate inferences about teachers and/or schools. The focal growth model in this presentation will be the Colorado Growth Model (i.e., "student growth percentiles"). A taxonomy of value-added models will be introduced as a function of (a) the degree which attempts are made to control for contextual variables beyond prior student achievement, (b) the level at which contextual variables are controlled (i.e., student, teacher, school) and (c) the approach taken to account for measurement error.

Intended Audience

Any researcher, measurement expert, graduate student, or practitioner interested in learning more about the latest innovations and pressing issues in educational measurement.

Saturday, April 27
4:00 p.m.–7:00 p.m., Cathedral Hill, 4th Floor

NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.

Sunday, April 28
8:00 a.m.–9:45 a.m., Grand Ballroom A, 3rd Floor
Invited Session, A1

ECD from A to Z: Applying Evidence-Centered Design Across the Assessment Continuum

Organizer
Michelle Riconscente, New York Hall of Science

Presenters
Michelle Riconscente, New York Hall of Science, Lucien Vattel, GameDesk
Extending ECD to the Design of Learning Experiences

Geneva Haertel, SRI International, Britte Cheng, SRI International, Daisy Rutstein, SRI International, Terry Vendlinski, University of California, Los Angeles, Angela DeBarger, SRI International
Designing Technology-Enhanced Assessment Tasks Using ECD

Valerie Shute, Florida State University, Matthew Ventura, Florida State University
Problem Solving, Spatial Orientation, and Persistence in Portal 2

John Behrens, Pearson, Kristen DiCerbo, Pearson
ECD as the Basis for a Comprehensive Global Educational Program

Discussant
Robert Mislevy, Educational Testing Service

Sunday, April 28
8:00 a.m.–9:45 a.m., Grand Ballroom B, 3rd Floor
Invited Session, A2

Computerized Multistage Testing: Theory and Applications

Organizer
Duanli Yan, Educational Testing Service

Presenters
Duanli Yan, Educational Testing Service
Multistage Testing for Various Purposes

Ronald Hambleton, University of Massachusetts, Amherst, April Zenisky, University of Massachusetts, Amherst
Multistage Test Designs: Moving Research Results Into Practice

Richard Luecht, University of North Carolina at Greensboro, Minhee Seo, Korea Institute for Curriculuum and Evaluation
Operational Design and Implementation Issues for Large-Scale Multistage Testing

Alexander Weissman, Law School Admission Council
IRT-based Routing and Scoring in Multistage Testing

Rebecca Zwick, Educational Testing Service, Brent Bridgeman, Educational Testing Service
Validity and Fairness Considerations for Multistage Testing

Krista Breithaupt, Medical Council of Canada, Oliver Zhang, American Institute of CPAs
Application of Multistage Testing in Credentialing Examinations

Discussant
Alina A. von Davier, Educational Testing Service

Sunday, April 28
8:00 a.m.–9:45 a.m., Grand Ballroom C, 3rd Floor
Coordinated Session, A3

Measurement Issues in Teacher Observations and the Estimation of Teacher Effects

Organizer
J. Patrick Meyer III, University of Virginia

Moderator
Catherine McClellan, Clowder Consulting

Presenters
Ben Kelcey, Wayne State University, Daniel McGinn, Harvard University, Heather Hill, Harvard University
Measuring the Teaching With Item Response Theory

J. Patrick Meyer III, University of Virginia, Andy Mashburn, Portland State University
How Much Reliability Can You Afford? Optimizing the Reliability of Teacher Observation Measures Under Budget Constraints

Catherine McClellan, Clowder Consulting, John Donoghue, Educational Testing Service, Yoon Soo Park, University of Illinois at Chicago
Commonality and Uniqueness in Teaching Practice Observation

Donald Boyd, University at Albany, Hamilton Lankford, University at Albany, Susanna Loeb, Stanford University, James Wyckoff, University of Virginia
Measuring Test Measurement Error: A General Approach

J.R. Lockwood, RAND Corporation, Daniel McCaffrey, RAND Corporation
Good and Bad Strategies for Protecting Teacher Value-Added Estimates Against Bias From Test Score Measurement Error

Discussant
Henry Braun, Boston College

Sunday, April 28
8:00 a.m.–9:45 a.m., Laurel Hill, 4th Floor
Coordinated Session, A4

Linking Scores in the Presence of Violations of Unidimensionality

Organizer
Wei Wang, University of Iowa

Moderator
Neil Dorans, Educational Testing Service

Presenters
Lili Yao, Educational Testing Service, Peng Lin, Educational Testing Service, Wei Wang, University of Iowa
Analytical Analysis of the Invariance of Linking Functions in Multidimensional Data

Peng Lin, Educational Testing Service, Neil Dorans, Educational Testing Service
The Effect of Construct Shift on Unidimensional IRT True-Score Equating

Wei Wang, University of Iowa, Neil Dorans, Educational Testing Service
Examining the Effects of Anchor Representativeness on Mixed-Format Tests

Jonathan Weeks, Educational Testing Service
Issues in Multidimensional Test Linking

Discussants
Michael Kolen, University of Iowa
Mark Reckase, Michigan State University

Sunday, April 28
8:00 a.m.–9:45 a.m., Telegraph Hill, 4th Floor
Individual Session, A5

Growth (I)

Moderator
Kimberly O'Malley, Pearson

Presenters
Daniel Murphy, Pearson
Evaluating the Use of Growth Prediction Models to Inform Instruction

Margarita Olivera Aguilar, Arizona State University/Educational Testing Service
Impact of Violations of Metric and Strong Factorial Invariance in Latent Growth Models

Ronli Diakow, University of California, Berkeley
Longitudinal Explanatory Item Response Models to Evaluate Educational Interventions

Ying Lu, Educational Testing Service, Wendy M. Yen, Psychometrics, LLC
Use of Longitudinal Regression in Quality Control

Andrea Hebert, Measured Progress, Inc., Lisa Keller, University of Massachusetts, Amherst, Robert Keller, Measured Progress, Inc., Jennifer Dunn, Measured Progress, Inc.
What You Can't See Can Hurt You: The Error in Growth Estimates

Discussant
Katherine Furgol Castellano, University of California, Berkeley

Sunday, April 28
8:00 a.m.–9:45 a.m., Twin Peaks, 4th Floor
Coordinated Session, A6

Critical Issues in Formative Assessment

Organizer
Randy Bennett, Educational Testing Service

Moderator
Randy Bennett, Educational Testing Service

Presenters
Susan Brookhart, Brookhart Enterprises LLC, Helena, MT

Lorrie Shepard, University of Colorado, Boulder

Dylan Wiliam, Emeritus Professor, Institute of Education, University of London

Sunday, April 28
8:00 a.m.–9:45 a.m., Union Square, 3rd Floor
Coordinated Session, A7

On the "Gameability" of Automated Scoring: Implications for Test-Based Accountability

Organizer
Isaac Bejar, Educational Testing Service

Moderator
Isaac Bejar, Educational Testing Service

Presenters
Isaac Bejar, Educational Testing Service
Lexical and Discourse-Level Construct-Irrelevant Response Strategies in Automated Scoring of Writing

Derrick Higgins, Educational Testing Service
Managing What We Can Measure: Quantifying the Susceptibility of Automated Scoring Systems to Gaming Behavior

Peter W. Foltz, Pearson, Mark B. Rosenstein, Pearson, Karen E. Lochbaum, Pearson, Marcia A. Derr, Pearson
Improving Performance of Automated Scoring Through Detection of Outliers and Understanding Model Instabilities

Karen E. Lochbaum, Pearson, Peter W. Foltz, Pearson, Mark B. Rosenstein, Pearson, Marcia A. Derr, Pearson, David Farnham, Pearson
Detection of Gaming in Automated Scoring of Essays With the IEA

Discussant
Brian Gong, National Center for the Improvement of Educational Assessment
Brian Clauser, National Board of Medical Examiners

Sunday, April 28
10:00 a.m.–11:45 a.m., Grand Ballroom A, 3rd Floor
Invited Session, B1

Big Data: New Opportunities for Measurement & Data Analysis

Organizer
Philip Piety, Ed Info Connections

Moderator
Philip Piety, Ed Info Connections

Opening Comments
John Behrens, Pearson

Panelists
Marcia Linn, University of California, Berkeley

Lydia Liu, Educational Testing Service

John Byrnes, SRI International

Kristen DiCerbo, Pearson

Gerald Tindal, University of Oregon

Jack Buckley, National Center for Educational Statistics

Lindsay Page, Harvard University

Will Marinell, Harvard University

Andrea Conklin Bueschel, Spencer Foundation

Ed Dieterle, Bill and Melinda Gates Foundation

Edith Gummer, National Science Foundation

Sunday, April 28
10:00 a.m.–11:45 a.m., Grand Ballroom B, 3rd Floor
Invited Session, B2

New Psychometric Models for Collaborative Problem Solving and Assessment of Skills

Organizer
Alina A. von Davier, Educational Testing Service

Chairs
Alina A. von Davier, Educational Testing Service
Peter Halpin, New York University

Presenters
Patrick Griffin, University of Melbourne
Pedagogical and Technical Challenges of Human to Human Internet Based Collaborative Problem Solving Assessment

Peter Halpin, New York University, Alina A. von Davier, Educational Testing Service
Evaluating the Roles of Individual Members in Team Interactions

Alina A. von Davier, Educational Testing Service
Modeling the Dynamics in Dyadic Interactions in Collaborative Problem Solving

Yoav Bergner, Massachusetts Institute of Technology
Data Mining Peer Instruction Interactions

Discussants
Chris Dede, Harvard University
Patrick Kyllonen, Educational Testing Service

Sunday, April 28
10:00 a.m.–11:45 a.m., Grand Ballroom C, 3rd Floor
Individual Session, B3

Cheating

Moderator
Daniel Jurich, James Madison University

Presenters
Patrick Obregon, Pearson
A Bayesian Approach to Detecting Compromised Items

Sheng Yun Huang, The Hong Kong Institute of Education, Wen Chung Wang, The Hong Kong Institute of Education
Implementing Scale Purification on lz for the Detection of Aberrant Responses

Lisa O'Leary, Alpine Testing Solutions, Russell Smith, Alpine Testing Solutions
Extending Differential Person and Item Functioning to Aid in Maintenance of Exposed Exams

Christopher Foster, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst, Stephen Sireci, University of Massachusetts, Amherst, Jennifer Randall, University of Massachusetts, Amherst
Taking the Next Step in Erasure Analysis: An Evaluation of the Development and Accuracy of Modern Methods

Arianto Wibowo, Measurement Incorporated, Leonardo Sotaridona, Measurement Incorporated, Irene Hendrawan, Measurement Incorporated
Statistical Models for Flagging Unusual Number of Wrong-To-Right Erasures

Discussant
James Wollack, University of Wisconsin

Sunday, April 28
10:00 a.m.–11:45 a.m., Laurel Hill, 4th Floor
Individual Session, B4

Technical Issues in Teacher Effectiveness

Moderator
Carole Gallagher, WestEd

Presenters
Katherine Furgol Castellano, University of California, Berkeley, Brent Duckor, San José State University, Diah Wihardini, University of California, Berkeley, Kip Tellez, University of California, Santa Cruz, Mark Wilson, University of California, Berkeley
Validity Evidence for the Internal Structure of the Performance Assessment for California Teachers' Elementary Mathematics Teaching Event

Jessica Alzen, University of Colorado, Boulder, Benjamin Domingue, University of Colorado, Boulder
A Characterization of Sorting and Implications for Value-Added Estimates

Carole Gallagher, WestEd, Charlene Tucker, Council of Chief State School Officers
Guidelines for Reporting Findings from Measures of Teacher Effectiveness

Brian F. French, Washington State University, Holmes Finch, Ball State University, Bruce Randel, Century Analytics, Brian Hand, University of Iowa, Chad Gotch, Washington State University
Measurement Invariance Techniques to Enhance Measurement Sensitivity

Andrea Lash, WestEd, Mary Peterson, WestEd, Richard Vineyard, Nevada Department of Education, Vanessa Barrat, WestEd, Loan Tran, WestEd
The Generalizability of School Growth Scores Derived from Student Growth Percentiles for Use in School Accountability and Principal Evaluation Systems

Discussant
Brian Stecher, RAND Corporation

Sunday, April 28
10:00 a.m.–11:45 a.m., Telegraph Hill, 4th Floor
Individual Session, B5

Test Assembly

Moderator
Yi Zheng, University of Illinois at Urbana-Champaign

Presenters
Rui Guo, University of Illinois at Urbana-Champaign, Chunyan Liu, ACT, Inc., Xiaohong Gao, ACT, Inc.
Multistage Testing with Item Pool Stratifications and Non-Statistical Constraints: An Automated Heuristic Test Assembly in a Large Scale Test

Jeffrey Patton, University of Notre Dame, Qi Diao, CTB/McGraw-Hill, Keith Boughton, CTB/McGraw-Hill
From Paper-and-Pencil to CAT: An Application of Mixed-Integer Programming

David Waldschmidt, Joint Commission on National Dental Examinations, Chien-Lin Yang, Joint Commission on National Dental Examinations, Mark Christensen, Joint Commission on National Dental Examinations
Developing Test Specifications for an Integrated Examination Based on Practice Analysis and Linkage Data

Usama Ali, Educational Testing Service, Peter van Rijn, Educational Testing Service
A Comparison of Response and Information Functions as Statistical Targets for Creating Parallel Forms in Item Response Theory

Pei-Hua Chen, National Chiao Tung University, An-Shun Dai, National Tsing Hua University, Wei-Min Sun, National Taiwan Normal University
Constructing CDM-Based Parallel Forms: A Refinement of the Randomization-Based Sgcell Method

Discussant
Xueli Xu, Educational Testing Service

Sunday, April 28
10:00 a.m.–11:45 a.m., Twin Peaks, 4th Floor
Coordinated Session, B6

Using Performance Level Descriptors to Communicate Student Learning and Readiness for College and Careers

Organizer
Barbara Plake, University of Nebraska, Lincoln

Moderator
Barbara Plake, University of Nebraska, Lincoln

Presenters
Marianne Perie, University of Kansas
Developing PLDs for "Readiness" Using a Statistical Approach

Marianne Perie, University of Kansas, Allison Kerbel, edCount, LLC
One Year After Standard Setting: Validating the PLDs

Michael Chajewski, The College Board
Item Selection Methodology for Validation of Scale Score Performance Level Descriptors for a Mixed-Format Exam

Rosemary Reshetar, The College Board, Pamela Kaliski, The College Board, Barbara Plake, University of Nebraska, Lincoln, Karen Lionberger, The College Board, Michael Chajewski, The College Board
Validating Performance Level Descriptors (PLDs) for the Advanced Placement® Environmental Science Exam

Discussant
Karla Egan, CTB/McGraw-Hill

Sunday, April 28
10:00 a.m.–11:45 a.m., Union Square, 3rd Floor
Coordinated Session, B7

Improving Assessment of English Learners: Test Administration Formats, Accommodations, and Score Reporting

Organizer
Stephen Sireci, University of Massachusetts, Amherst

Moderator
Stephen Sireci, University of Massachusetts, Amherst

Presenters
Guillermo Solano-Flores, University of Colorado, Boulder
Visual Displays as Aids for English Language Learners

Katrina Crotts, University of Massachusetts, Amherst
Examining the Interaction of School Variables and Type of Accommodation

Jennifer Paul, Michigan State Department of Education, Stephen Sireci, University of Massachusetts, Amherst, Joseph A. Rios, University of Massachusetts, Amherst
Analyzing English Learners' Essay Responses across Computer- and Paper-Based Tests

Alvaro Arce-Ferrer, Pearson
Investigation of Statistical Frameworks to Evaluate Linguistic Simplifications of Mathematics Assessments

Molly Faulkner-Bond, University of Massachusetts, Amherst, MinJeong Shin, University of Massachusetts, Amherst, Xi Wang, University of Massachusetts, Amherst, Eric Moyer, Pearson
Score Reports for English Proficiency Assessments: Current Practices and Future Directions

Therese Carr, Wisconsin Center for Education Research, University of Wisconsin, Madison, Rebecca Kopriva, Wisconsin Center for Education Research, University of Wisconsin, Madison
Allowing Diverse Learners to "Show & Tell" on Mathematics and Science Assessments: ONPAR Computer-Interactive Response Formats

Discussant
Robert Linquanti, WestEd

Sunday, April 28
10:00 a.m.–11:45 a.m.
Invited Session, Refer to AERA program

National Association of Test Directors: Implementation Milestones and the Common Core State Standards

Organizer
Toni Stroter, Liberty University

Presenters
Paolo DeMaria, Education First

Karen Nicodemus, Arizona PARCC Representative from the AZ Higher Ed Systems

Julie Carnahan, State Higher Education Executive Officers

Aundrea Kelly, Massachusetts P-16 Policy and Collaborative Initiatives

Joe Willhoft, SMARTER Balanced Assessment Consortium

Sunday, April 28
12:15 p.m.–2:00 p.m., Grand Ballroom B, 3rd Floor
(Invited) Debate of Day, C1

Projection Models are Superior to Student Growth Percentiles for K-12 Accountability Systems

Chair
Wes Bruce, Indiana Department of Education

Panelists
Andrew Ho, Harvard Graduate School of Education

Damian Betebenner, Center for Assessment

Derek Briggs, University of Colorado, Boulder

Sunday, April 28
12:15 p.m.–2:00 p.m., Grand Ballroom C, 3rd Floor
Invited Session, C2

Testing in the Movies and Television

Organizer
Anita Rawls, The College Board

Chairs
Anita Rawls, The College Board

Neal Kingston, University of Kansas

Brett Foley, Alpine Testing Solutions
Video Co-Creator/Editor

Andrew C. Dwyer, Castle Worldwide, Inc., Siang Chee Chuah, The College Board, Anita Rawls, The College Board
Video Co-Creators

Panelists
Brett Foley, Alpine Testing Solutions
Emily J. Shaw, The College Board
Mary Beth Woodson, University of Kansas

Sunday, April 28
12:15 p.m.–2:00 p.m., Laurel Hill, 4th Floor
Individual Session, C3

Large Scale Assessment for ELs

Moderator
Katrina Crotts, University of Massachusetts, Amherst

Presenters
Joni Lakin, Auburn University
Meeting the Assessment Needs of English Learner Students: The Validity of Accountability-Focused Growth Models

Karen Fung, University of Alberta, Hollis Lai, University of Alberta, Mark Gierl, University of Alberta
Evaluating the Translations on Item Models in Automatic Item Generation

Luke Stanke, University of Minnesota, Jose Palma, University of Minnesota, Okan Bulut, University of Minnesota, Michael Rodriguez, University of Minnesota
Investigating Measurement Invariance Assumption Using Item Parameter Drift Across Grade Levels and ELL Groups

Patricia Carroll, University of California, Los Angeles, Alison Bailey, University of California, Los Angeles
Combining Multiple Indicators in Classifications of English Language Proficiency: A Descriptive Study

Discussant
Edward Roeber, University of Wisconsin

Sunday, April 28
12:15 p.m.–2:00 p.m., Telegraph Hill, 4th Floor
Coordinated Session, C4

Contrasting State-of-the-Art in the Machine Scoring of Short-Form Constructed Responses

Organizer
Mark Shermis, The University of Akron

Moderator
Mark Shermis, The University of Akron

Presenters
Jaison Morgan, The Common Pool
The Context of Contrasting Short-Form Constructed Responses

Derrick Higgins, Educational Testing Service
c-rater

David Vaughn, Measurement, Incorporated
Project Essay Grade

Mark Shermis, The University of Akron
Contrasting State-of-the-Art in the Machine Scoring of Short-Form Constructed Responses: Analysis

Ellie Sanford, MetaMetrics, Inc.
The Lexile® Writing Anaylzer

Luis Tandalla, University of New Orleans
ASAP II First Place Winner

Discussant
Kristen Huff, Regents Research Fund New York

Sunday, April 28
12:15 p.m.–2:00 p.m., Twin Peaks, 4th Floor
Coordinated Session, C5

Mixed Membership Models: A Generalization of Latent Class Models

Organizer
April Galyardt, University of Georgia

Moderator
April Galyardt, University of Georgia

Presenters
April Galyardt, University of Georgia
Modeling How Students Use Multiple Strategies on Assessments

Fabrizio Lecci, Carnegie Mellon University
Longitudinal Mixed Membership Models and Evolution of Cognitive Impairment

Tracy Sweet, Carnegie Mellon University
Hierarchical Mixed Membership Stochastic Blockmodels for Education Research

Discussant
Ryan Baker, Teachers College, Columbia University

Sunday, April 28
12:15 p.m.–2:00 p.m., Union Square, 3rd Floor
Individual Session, C6

Differential Item Functioning (I)

Moderator
Insu Paek, Florida State University

Presenters
Quinn Lathrop, University of Notre Dame, Ying Cheng, University of Notre Dame, Jeffrey Patton, University of Notre Dame, Can Shao, University of Notre Dame
Selection of Anchor Items in MIMIC Tests of DIF

Holmes Finch, Ball State University, Maria Finch, Ball State University
Investigating Specific Learning Disability and Testing Accommodations Based Differential Item Functioning Analysis Using a Multilevel Multidimensional Mixture Item Response Theory Model

Hirotaka Fukuhara, Pearson, Insu Paek, Florida State University
An Application of Logistic Mixed Model to Simultaneously Investigate Item and Testlet

Hsin Ying Huang, National Chengchi University, Allan Cohen, University of Georgia
A Multilevel Mixture 2PL IRT Model for DIF

Xiaoyu Qian, Educational Testing Service, Zhan Shu, Educational Testing Service
Posterior Predictive Assessment of a Multi-level Differential Item Functioning Model within Fully Bayesian Framework

Discussant
Craig Wells, University of Massachusetts, Amherst

Sunday, April 28
2:30 p.m.–4:00 p.m., Grand Ballroom A, 3rd Floor
Invited Session, D1

The Infusion of Technology in Test Development: Advances and Demonstrations

Organizer
Mark Gierl, University of Alberta

Presenters
Elaine Rodeck, RPS, LLC
Blueprinting 101: The Evolution of Test Specifications in the Age of Technology-Rich Assessment

Mark Gierl, University of Alberta, Hollis Lai, University of Alberta
Using Technology to Generate Items for Medical Exams

April Zenisky, University of Massachusetts, Amherst, Stephen Sireci, University of Massachusetts, Amherst
Innovative Items to Measure High-Order Thinking: Development and Validity Considerations

Mary Roberts, University of Alberta, Renate Taylor-Majeau, Alberta Education
The Design and Implementation of Multimedia Test Score Reports

Discussant
Richard Luecht, University of North Carolina at Greensboro

Sunday, April 28
2:30 p.m.–4:00 p.m., Grand Ballroom B, 3rd Floor
Individual Session, D2

Response Time

Moderator
Feifei Li, Educational Testing Service

Presenters
Chun Wang, University of Illinois at Urbana-Champaign, Zhewen Fan, University of Illinois at Urbana-Champaign, Hua-Hua Chang, University of Illinois at Urbana-Champaign, Jeff Douglas, University of Illinois at Urbana-Champaign
A Semi-Parametric Model for Jointly Analyzing Response Times and Accuracy in Computerized Testing

Michael Chajewski, The College Board
Inferring Test Speededness Under Changing Exam Specifications

Nilufer Kahraman, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Monica Cuddy, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners
Information Available in Item Review Patterns When Evaluating Test Speededness: A USMLE Step 2 Clinical Knowledge Examination Example

Rohini Sen, Memorial Sloan Kettering Cancer Center, H. Jane Rogers, University of Connecticut, Hariharan Swaminathan, University of Connecticut
A Structural Equation Model for Incorporating Response Time Information in Parameter Estimation for Polytomous IRT Models

Discussant
Yi-Hsuan Lee, Educational Testing Service

Sunday, April 28
2:30 p.m.–4:00 p.m., Grand Ballroom C, 3rd Floor
Coordinated Session, D3

Practical Issues in Automated Scoring

Organizer
Christina Schneider, CTB/McGraw-Hill

Moderator
Claudia Leacock, CTB/McGraw-Hill

Presenters
Claudia Leacock, CTB/McGraw-Hill, David Messineo, Consultant
Issues in Prompt Selection for Automated Scoring of Short Answer Questions

Jon Cohen, American Institutes for Research
Evaluating Argument Structure

Christina Schneider, CTB/McGraw-Hill, Lara Osleson, CTB/McGraw-Hill
Evaluating the Comparability of Human and Engine Scores Over Time

Duanli Yan, Educational Testing Service, Jay Breyer, Educational Testing Service
Is There a Seasonality Effect for the Performance of an Automated Essay Scoring System Over Time?

Jay Breyer, Educational Testing Service
How Does the Scale of a Constructed-Response Item Affect the Threshold for Automated Scoring Acceptance?

Discussant
Yigal Attali, Educational Testing Service

Sunday, April 28
2:30 p.m.–4:00 p.m., Laurel Hill, 4th Floor
Individual Session, D4

Teacher Effectiveness: Student Characteristics

Moderator
Allen Doolittle, Riverside Publishing

Presenters
Steven Wise, Northwest Evaluation Association, Lingling Ma, Northwest Evaluation Association, John Cronin, Northwest Evaluation Association, Robert Theaker, Northwest Evaluation Association
Student Test-Taking Effort and the Assessment of Student Growth in Evaluating Teacher Effectiveness

John Engberg, RAND Corporation, Juan Saavedra, RAND Corporation, Jennifer Steele, RAND Corporation, Gema Zamarro, RAND Corporation
Disentangling Disadvantage: Can We Distinguish Good Teaching from Classroom Composition?

Jerome Clauser, University of Massachusetts, Amherst, Daniel Lewis, CTB/McGraw-Hill
The Effect of Summer Learning Loss on Teacher Evaluation

Heather Buzick, Educational Testing Service, Nathan Jones, Boston University
Practical Considerations for Including Scores From Students With Disabilities who Take the General Assessment in Teacher Effectiveness Indicators

Discussant
Anne Davidson, Alpine Testing Solutions

Sunday, April 28
2:30 p.m.–4:00 p.m., Telegraph Hill, 4th Floor
Individual Session, D5

Propensity Score Matching

Moderator
Benjamin Domingue, University of Colorado, Boulder

Presenters
Dvir Kleper, National Institute for Testing and Evaluation, Elliot Turvall, National Institute for Testing and Evaluation, Tamar Kennet-Cohen, National Institute for Testing and Evaluation, Carmel Oren, National Institute for Testing and Evaluation
Using Propensity Scores to Examine the Fairness of Higher Education Admissions for Applicants Who Request Test Accommodations.

Dong Gi Seo, Michigan Department of Education
Score Comparability Study of Online and Paper-Pencil Administrations Using Propensity Score Matching Models

Yun Xiang, Northwest Evaluation Association, Shudong Wang, Northwest Evaluation Association
An Application of Propensity Score Matching in Multilevel Model

Ji Zeng, Michigan Department of Education, Kerby Shedden, University of Michigan, Ping Yin, Questar
Using Propensity Score Matched Samples for Mode Comparison

Discussant
Greg Camilli, University of Colorado, Boulder

Sunday, April 28
2:30 p.m.–4:00 p.m., Twin Peaks, 4th Floor
Coordinated Session, D6

Improving the Way Teachers Connect Assessments With Learning in Mathematics

Organizer
Pamela Paek, Center for Assessment

Moderator
Pamela Paek, Center for Assessment

Presenters
Anne Collins, Lesley University
International Issues in Mathematics Classroom Assessment: Report from ICME 2012

Pamela Paek, Center for Assessment
Design and Development of Mathematics Tasks For Informing Student Learning

David Webb, University of Colorado, Boulder
Integrating Classroom Assessment Data with Student Learning

Discussant
Guillermo Solano-Flores, University of Colorado, Boulder

Sunday, April 28
2:30 p.m.–4:00 p.m., Union Square, 3rd Floor
Individual Session, D7

Multivariate

Moderator
Ahmet Turhan, Pearson

Presenters
Thomas McCoy, University of North Carolina at Greensboro, John Willse, University of North Carolina at Greensboro, Ellen Jones, University of North Carolina at Greensboro, Susan Letvak, University of North Carolina at Greensboro
Ridge or Re-Estimate? Improper Solutions in Ordinal Confirmatory Factor Analysis (CFA) of Polychoric Correlations: A Case Study

Ji Seung Yang, University of California, Los Angeles, Li Cai, University of California, Los Angeles
Estimation of Contextual Effects Through Nonlinear Multilevel Latent Variable Modeling With a Metropolis-Hastings Robbins-Monro Algorithm

Can Shao, University of Notre Dame, Ying Cheng, University of Notre Dame
The Mediated MIMIC Model for Differential Item Functioning Detection

Johnny Lin, University of California, Los Angeles
Extending Simpson's Diversity Index to Assess the Ethnic Composition of School Districts

Discussant
Brian Habing, University of South Carolina

Sunday, April 28
4:15 p.m.–5:30 p.m., Laurel Hill, 4th Floor
Individual Session, E1

Raters

Moderator
Yoon Soo Park, University of Illinois at Chicago

Presenters
Tzur Karelitz, National Institute for Testing and Evaluation, David Budescu, Fordham University
The Effect of the Raters' Marginal Distributions on their Matched Agreement: A Rescaling Framework for Interpreting Kappa

Daniel Anderson, University of Oregon, P. Shawn Irvin, University of Oregon, Julie Alonzo, University of Oregon, Gerald Tindal, University of Oregon
Modeling Rater Effects in a Formative Mathematics Alignment Study

Xiao-Min Li, The Hong Kong Institute of Education, Wen-Chung Wang, The Hong Kong Institute of Education
Facets Cognitive Diagnosis Models for Rater Effect

Adrienne Sgammato, Educational Testing Service, John Donoghue, Educational Testing Service
On the Power of the Marginal Homogeneity Test to Detect Rater Drift

Kyunghee Suh, Educational Testing Service
The Development of the Modified Rater Agreement Index

Discussant
Jilliam Joe, Educational Testing Service

Sunday, April 28
4:15 p.m.–5:30 p.m., Telegraph Hill, 4th Floor
Coordinated Session, E2

A Comprehensive Approach to Validity Evaluation within an ECD-Based, Fully Accessible Assessment Context

Organizer
Ellen Forte, edCount, LLC

Moderator
Ellen Forte, edCount, LLC

Presenters
Sharon Hall, edCount, LLC, Lisa Ford, Nevada Department of Education
Building in Content Coherence and Accessibility in Test Design

Ellen Forte, edCount, LLC
Evaluating Alignment for Assessments Developed Using Evidence-Centered Design

Chris Johnstone, University of Minnesota, NCEO
Gathering Evidence About How Students With Significant Cognitive Disabilities Process Items or Tasks

Claudia Flowers, University of North Carolina at Charlotte
Evaluating Fairness for Alternate Assessments based on Alternate Achievement Standards

Discussant
Kristen Huff, Regents Research Fund New York

Sunday, April 28
4:15 p.m.–5:30 p.m., Twin Peaks, 4th Floor
Individual Session, E3

Teacher Effectiveness: Qualitative Measures

Moderator
Arie Van der Ploeg, American Institutes for Research

Presenters
Seow Ling Ong, ETR Associates, Inc., Jill Glassman, ETR Associates, Inc., Lisa Unti, ETR Associates, Inc., Regina Firpo-Triplett, ETR Associates, Inc.
Skewed Perceptions: A Look at Teachers' Self-Reports Compared to In-Person Observations, Audio Observations, and Website Usage Data

Philip Fletcher, Pearson, Katherine Basset, Pearson, John Kirkland, New Zealand, David Bimler, Massey University
Teacher Effectiveness Card Sort Devices: Efficiently Measuring Educator Effectiveness and Informing Teacher Development

Jianlin Hou, The School District of Palm Beach, Dongmei Li, ACT, Inc.
Reliability of Teacher Observation System: An Investigation Using Generalizability Theory

Amy Farley, University of Colorado, Boulder
Engaging Students in the Educator Effectiveness Conversation: Building a Validity Argument Regarding the Use of Student Perception Surveys

Discussant
Brent Duckor, San José State University

Sunday, April 28
4:15 p.m. - 5:30 p.m., Union Square, 3rd Floor
Individual Session, E4

Item Parameter Drift

Moderator
Tia Sukin, Pacific Metrics Corporation

Presenters
Ye Meng, Institute of Developmental Psychology, Beijing Normal University, Xin Tao, Institute of Developmental Psychology, Beijing Normal University
The Effects of Item Parameter Drift on Vertical Scaling under NEAT Design

Haiyan Lin, ACT, Inc., Xiaohong Gao, ACT, Inc., Rongchun Zhu, ACT, Inc., Hanwei Chen, ACT, Inc., Chunyan Liu, ACT, Inc.
Evaluating Comparability of Item Parameter Estimates Across Different Measurement Conditions and Populations

Lisa Keller, University of Massachusetts, Amherst, Robert Keller, Measured Progress, Inc., Robert Cook, University of Massachusetts, Amherst, Kimberly Colvin, University of Massachusetts, Amherst
When to Say When: Determining When You Need to Re-Estimate Parameters for Pre-Equating

Xiaoxin Wei, University of Virginia, J. Patrick Meyer, University of Virginia
Evaluation of Four Robust z Procedures for Detecting Item Parameter Drift in the 3PLM

Discussant
Kyoko Ito, Defense Manpower Data Center

Sunday, April 28
6:00–8:30 p.m., Grand Ballroom B, 3rd Floor

NCME 75th Anniversary Gala

The Gala will celebrate NCME's 75th Anniversary with lots of fun activities. The event starts on Sunday, April 28 at 6:00 p.m. in Grand Ballroom B of the InterContinental Hotel. NCME Past President Ron Berk will serve as the Master of Ceremonies. Four musical parodies of measurement will be offered followed by four presentations of psychometric silliness. The NCME Time Capsule and the NCME Timeline will both be highlighted. Finally, NCME Past President William Mehrens will offer a champagne toast and members of NCME's Graduate Students Issues Committee, lead by chairman Ian Hembry, will cut the celebratory cake. Come join us to wish NCME a Happy 75th Anniversary!

The Gala is only one of several activities planned for this year's conference to recognize NCME's 75th Anniversary. A session of the portrayal of Testing in the Movies and Television will be held Sunday, April 28 from 12:15 p.m.–2:00 p.m. in Grand Ballroom C. On Tuesday, April 30 another 75th Anniversary session will provide an analysis of measurement topics in *JEM*, *EM:IP*, and NCME Conference Programs. This session will be held from 8:00 a.m.–9:45 a.m. in Grand Ballroom A. Also, the NCME Timeline will be on display at NCME Headquarters throughout the conference. NCME's Time Capsule will be featured at the Gala and also at the Breakfast Meeting.

Planning for NCME's 75th Anniversary celebration began in 2012 under the leadership of Neal Kingston, University of Kansas. Members of the 75th Anniversary Celebration Planning Committee, in addition to Neal, include Gretchen Anderson, Amy Clark, Linda Cook, Gregory J. Cizek, Anne Fitzpatrick, David Frisbie, Kris Waltman Frisbie, Karoline Jarr, Susan Loomis, Plumer Lovelace, Kimberly O'Malley, Barbara Plake, W. James Popham, Elaine Rodeck, and Edward Roeber.

Monday, April 29
8:00 a.m.–9:30 a.m., Grand Ballroom B, 3rd Floor

NCME Business Meeting and Breakfast

Join your friends and colleagues at the NCME Breakfast and Business Meeting at the InterContinental Hotel. Theater style seating will be available for those who did not purchase a breakfast ticket but wish to attend the Business Meeting.

Monday, April 29
9:30 a.m.–10:15 a.m., Grand Ballroom B, 3rd Floor

NCME Presidential Address

Gregory J. Cizek, University of North Carolina at Chapel Hill
An Unpublishable Presidential Address

Monday, April 29
10:30 a.m.–12:15 p.m., Grand Ballroom B, 3rd Floor
(Invited) Debate of Day, F1

Failure to Use Value Added Modeling for Measuring Educator Effectiveness is Un-American

Chair
Jon Twing, Pearson

Panelists
Doug Harris, Tulane University

Rob Weil, American Federation of Teachers

Drew Gitomer, Rutgers, The State University of New Jersey

Monday, April 29
10:30 a.m.–12:15 p.m., Grand Ballroom C, 3rd Floor
Individual Session, F2

Vertical Scaling

Moderator
Anna Topczewski, University of Iowa

Presenters
Tony Thompson, ACT, Inc.
The Effects of Linking Item Selection on Vertical Scaling

Jason Kopp, James Madison University, Laine Bradshaw, James Madison University, Michael Young, Pearson, C. Allen Lau, Pearson
A Method for Vertically Scaling Diagnostic Classification Models

Juan Chen, University of Iowa, Deborah Harris, ACT, Inc.
Comparison of Two Vertical Scaling Frameworks for Computerized Adaptive Testing

Jonathan Weeks, Educational Testing Service
Linking Error in Multidimensional Vertical Scaling

Discussant
Anton Béguin, Cito

Monday, April 29
10:30 a.m.–12:15 p.m., Laurel Hill, 4th Floor
Coordinated Session, F3

Validation of Next-Generation, Technology-Based, Performance Assessments: An Example From CBAL

Organizer
Randy Bennett, Educational Testing Service

Moderator
Randy Bennett, Educational Testing Service

Presenters
Richard Tannenbaum, Educational Testing Service, Patricia Baron, Educational Testing Service, Priya Kannan, Educational Testing Service
Alignment Between Innovative Summative Assessment Prototypes and the Common Core State Standards: An Exploratory Investigation

Gary Feng, Educational Testing Service, Edith Graf, Educational Testing Service, Madeleine Keehner, Educational Testing Service, Anita Sands, Educational Testing Service, Margaret Redman, Educational Testing Service
Validation of Student Response Processes Using Eye-tracking and Verbal Protocol

Edith Graf, Educational Testing Service, Peter van Rijn, Educational Testing Service
Recovery of CBAL Learning Progressions: Theory, Results, Challenges, and Next Steps

Peter van Rijn, Educational Testing Service
What Can Multidimensional IRT Do For Next-Generation Reading and Writing Assessments?

Discussant
Lauress Wise, HumRRO

Monday, April 29
10:30 a.m.–12:15 p.m., Telegraph Hill, 4th Floor
Individual Session, F4

Item Response Theory (I)

Moderator
Shudong Wang, Northwest Evaluation Association

Presenters
Tongyun Li, University of Maryland, College Park, Hong Jiao, University of Maryland, College Park, Jeffrey Harring, University of Maryland, College Park, George Macready, University of Maryland, College Park
Investigating the Impact of Different Approaches to Adding Covariates in Mixture Item Response Theory Models

In-Hee Choi, University of California, Berkeley, Insu Paek, Florida State University, Sun-Joo Cho, Peabody College of Vanderbilt University
The Impact of Various Item Profile Patterns on Model Selection in Mixture IRT Models

Xiaoshu Zhu, University of Maryland, College Park, Robert Lissitz, University of Maryland, College Park
Distinguishing Between Parametric and Non-parametric Specifications of Multilevel Mixture IRT Models: A Simulation Study

Zijian Wang, Teachers College, Columbia University, Lawrence DeCarlo, Teachers College, Columbia University
A Regression Extension of a Latent Class Signal Detection Model, with Applications to Constructed Response Scoring

Youn-Jeng Choi, University of Georgia, Allan Cohen, University of Georgia
Metric Identification in the Mixture IRT Model

Discussant
John Willse, University of North Carolina at Greensboro

Monday, April 29
10:30 a.m.–12:15 p.m., Twin Peaks, 4th Floor
Individual Session, F5

Dimensionality

Moderator
Stephen Murphy, Pearson

Presenters
Ze Wang, University of Missouri, Christi Bergin, University of Missouri, David Bergin, University of Missouri
Measuring a Multidimensional Construct: Six Approaches and Their Implications

Nedim Yel, Arizona State University, Xu Yuning, Arizona State University, Roy Levy, Arizona State University
Dimensionality Assessment for Multidimensional Item Response Models Accommodating Polytomous and Missing Data

Chen Wei Liu, The Hong Kong Institute of Education, Wen Chung Wang, The Hong Kong Institute of Education
Spectral Clustering on Dimensionality Assessment

Derek Fay, Arizona State University
An Evaluation of the Performance of DIMTEST with Conditional Covariance-Based Subtest Selection Methods with Small Samples and Short Tests

Louis Roussos, Measured Progress, Inc., Tyler Lonczak, Measured Progress, Inc., Zhushan Li, Boston College
Simple and Interpretable Effect Size Estimate for Test Multidimensionality via a Nonparametric Standard Error of Measurement

Discussant
Mark Reckase, Michigan State University

Monday, April 29
10:30 a.m.–12:15 p.m., Union Square, 3rd Floor
Individual Session, F6

MIRT

Moderator
Tianli Li, ACT, Inc.

Presenters
Frank Rijmen, Educational Testing Service
Latent Regression Bifactor and Second-Order Models: Model Specification and Full-Information Maximum Likelihood Estimation

Chia Wen Chen, The Hong Kong Institute of Education, Wen Chung Wang, The Hong Kong Institute of Education
Item Response Theory Models for Ipsative Tests

Minjeong Jeon, University of California, Berkeley, Frank Rijmen, Educational Testing Service, Sophia Rabe-Hesketh, University of California, Berkeley
A Bifactor Multitrait-Multimethod Model for Educational Assessments

Fu Liu, University of North Carolina at Greensboro, Terry Ackerman, University of North Carolina at Greensboro, Robert A. Henson, University of North Carolina at Greensboro, Jie Zhou, Coastal Carolina University
Skewed Logistic Noncompensatory Multidimensional Item Response Model

Hyo Jeong Shin, University of California, Berkeley, Jinnie Choi, Rutgers, The State University of New Jersey
Multidimensional Item Bundle Models With Rater Effects

Discussant
Li Cai, University of California, Los Angeles

Monday, April 29
12:45 p.m.–2:15 p.m., Grand Ballroom A, 3rd Floor
Invited Session, G1

AWARDS COMMITTEE
Career Award Address

Organizer
Deborah Harris, ACT, Inc.

Moderator
Bruno Zumbo, University of British Columbia

Presenter
Allan Cohen, University of Georgia
Some Thoughts on Measuring (More of) Achievement

Discussant
Bruno Zumbo, University of British Columbia

Monday, April 29
12:45 p.m.–2:15 p.m., Grand Ballroom B, 3rd Floor
Coordinated Session, G2

Achievement Gap Trends in the NCLB Era: From Nonparametric Measurement to Policy-Relevant Findings

Organizer
Andrew Ho, Harvard Graduate School of Education

Moderator
Sean Reardon, Stanford University

Presenters
Andrew Ho, Harvard Graduate School of Education, Sean Reardon, Stanford University
Practical Achievement Gap Estimation in a Nonparametric Framework

Sean Reardon, Stanford University, Andrew Ho, Harvard Graduate School of Education, Demetra Kalogrides, Stanford University
Addressing Measurement Error and Sampling Variability in Nonparametric Gap Estimation

Adela Soliz, Harvard Graduate School of Education, Darrick Yee, Harvard Graduate School of Education
Comparing Test Score Trends at Different Cut Scores: A Nonparametric "Desert Island" Approach and its Shortcomings

Kenneth Shores, Stanford University, Rachel Valentino, Stanford University, Sean Reardon, Stanford University
Trends in Nonparametric Achievement Gaps in the NCLB Era

Discussant
Edward Haertel, Stanford University

Monday, April 29
12:45 p.m.–2:15 p.m., Grand Ballroom C, 3rd Floor
Coordinated Session, G3

Building the Next Generation System to Evaluate Teacher Quality

Organizer
Raymond L. Pecheone, Stanford University

Moderator
Raymond L. Pecheone, Stanford University

Presenters
Heather Klesch, Pearson, Ruth Wei, Stanford University, Raymond L. Pecheone, Stanford University
Establishing Validity Evidence for a Nationally Administered Teacher Performance Assessment

Scott Marion, National Center for the Improvement of Educational Assessment
Evaluating the Validity of Student Learning Objectives

Tom Kane, Harvard University
Have We Identified Effective Teachers?

Kelly Burling, Pearson, Joe Doctor, National Board for Professional Teaching Standards
An Examination of the Relationship Between Student Achievement and National Board for Professional Teaching Standards (NBPTS) Certification

Discussant
Paul Nichols, Pearson

Monday, April 29
12:45 p.m.–2:15 p.m., Laurel Hill, 4th Floor
Individual Session, G4

Issues in Human and Auto Scoring of Performance Tasks

Moderator
Isaac Bejar, Educational Testing Service

Presenters
Ou Lydia Liu, Educational Testing Service, Libby Gerard, University of California, Berkeley, Chris Brew, Nuance Communications, John Blackmore, Educational Testing Service, Jacquie Madhok, University of California, Berkeley
Automated Scoring in Inquiry Science: Application of c-rater in Formative Assessment

Avi Allalouf, National Institute for Testing & Evaluation, Marina Fronton, National Institute for Testing & Evaluation, Galit Klapfer, National Institute for Testing & Evaluation
Monitoring Performance Assessment Raters: Is There a Correlation between Accuracy and Speed of Rating?

Polina Harik, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners, Constance Murray, National Board of Medical Examiners, Cara Artman, National Board of Medical Examiners, Andrea Veneziano, National Board of Medical Examiners, Melissa Margolis, National Board of Medical Examiners
Comparison of Automated Scores Derived from Independent Groups of Content Experts

Florian Lorenz, Educational Testing Service, Mo Zhang, Educational Testing Service
Comparing Measures of Differential Model Functioning in Automated Scoring of Constructed Responses

Yoon Soo Park, University of Illinois at Chicago, Patrick Conley, University of Illinois at Chicago, Elizabeth Reed, City of Columbus Civil Service Commission
An Extension of the Hierarchical Rater Model for Evaluating Differences in Mode of Observation

Discussant
Walter Denny Way, Pearson

Monday, April 29
12:45 p.m.–2:15 p.m., Telegraph Hill, 4th Floor
Individual Session, G5

Concepts, Philosophy, Validity

Moderator
Mark Hansen, Columbia University

Presenters
Keith Markus, John Jay College, CUNY
Comparing Two Accounts of Degrees of Validity: Deductive Strength Versus Belief Centrality

Gary Williamson, MetaMetrics, Inc.
Messages for the Study of Growth

Robert Ennis, University of Illinois at Urbana-Champaign
Reclaiming Test Validity

Andrew Maul, University of Colorado, Boulder
Implications of the Philosophy of Measurement for Psychometric Practice

Discussant
Michael Kane, Educational Testing Service

Monday, April 29
12:45 p.m.–2:15 p.m., Twin Peaks, 4th Floor
Coordinated Session, G6

"Let's Talk About How You Did": Research on Communicating Student Performance to Connect Assessment and Learning

Organizer
April Zenisky, University of Massachusetts, Amherst

Moderator
M. Fernanda Gándara, University of Massachusetts, Amherst

Presenters
John Behrens, Pearson, Kristen DiCerbo, Pearson, Daniel Robinson, Colorado State University, Daniel Murphy, Pearson
A Communication Framework for Score Reporting

Dean Goodman, British Columbia Ministry of Education
Communicating Student Learning—One Jurisdiction's Efforts to Change How Student Learning is Reported

Stephen Sireci, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst, Louise Bahry, University of Massachusetts, Amherst
Student Growth Percentiles: More Noise Than Signal?

April Zenisky, University of Massachusetts, Amherst
Building—and Maintaining—Score Reports in a Challenging Assessment Context

Discussant
Ronald Hambleton, University of Massachusetts, Amherst
Diego Zapata-Rivera, Educational Testing Service

Monday, April 29
12:45 p.m.–2:15 p.m., Union Square, 3rd Floor
Individual Session, G7

Linking

Moderator
Arnond Sakworawich, Fordham University

Presenters
Ou Zhang, Pearson, M. David Miller, University of Florida, James Algina, University of Florida
Observed Score and True Score Equating for Multidimensional Item Response Theory Under Nonequivalent Group Anchor Test Design

Han Yi Kim, University of Iowa, Won-Chan Lee, University of Iowa
A Comparison of Smoothing Methods for the Common Item Nonequivalent Groups (CINEG) Design

Anton Béguin, Cito, Remco Feskens, Cito
The Effect of Multilevel Structure and Model Dependency on the Standard Error of IRT Linking in a Nonequivalent Groups Design

Devdass Sunnassee, University of North Carolina at Greensboro
Conditions Affecting the Accuracy of Classical Equating Methods for Small Samples Under the NEAT Design: A Simulation Study

Discussant
Jinghua Liu, Educational Testing Service

Monday, April 29
2:30 p.m.–4:15 p.m., Grand Ballroom A, 3rd Floor
Invited Session, H1

Test Security Coordinated Sessions I: Technical/Statistical/ Methodological Issues

Organizer
Gregory J. Cizek, University of North Carolina at Chapel Hill

Moderator
Neal Kingston, University of Kansas

Presenters
William Skorupski, Uiversity of Kansas, Howard Wainer, National Board of Medical Examiners
Why You Should Detect Cheating the Bayesian Way

Jeff Allen, ACT, Inc.
Pieces of the Puzzle Needed for Bayesian Estimation of Probability of Copying

Yi-Hsuan Lee, Educational Testing Service, Charles Lewis, Educational Testing Service, Alina A. von Davier, Educational Testing Service
Monitoring the Quality and Security of Multistage Tests

James Wollack, University of Wisconsin, Allan Cohen, University of Geogia, Carol Eckerly, University of Georgia
Detecting Test Tampering Using Item Response Theory

Discussant
Gary Phillips, American Institutes for Research

Monday, April 29
2:30 p.m.–4:15 p.m., Grand Ballroom B, 3rd Floor
Invited Session, H2

Inclusion of Students With Disabilities and English Learners in the Administrations of the Race to the Top Assessments: Technical Issues and Accommodations

Organizer
Zollie Stevenson Jr., Howard University

Chair
Zollie Stevenson Jr., Howard University

Presenters
Mike Russell, Measured Progress, Inc.

Magda Chia, Smarter Balanced Assessment Consortium

Tamara Reavis, PARCC

Discussants
Carlos Martinez, United States Department of Education
Martha Thurlow, University of Minnesota

Monday, April 29
2:30 p.m.–4:15 p.m., Grand Ballroom C, 3rd Floor
Coordinated Session, H3

Bridging the Measurement Gaps: Extending NCME Expertise to Educational Testing Programs around the World

Organizer
Terry Ackerman, University of North Carolina at Greensboro

Moderator
Terry Ackerman, University of North Carolina at Greensboro

Presenters
Fang Chen, East China Normal University, Xiaonan Bi, Shanghai Municipal Educational Examinations Authority
Update on Educational Testing Programs in China: JAES as an Example

Mauricio Estrada, Proyecto MIDEH, Luis Ramos, Proyecto MIDEH
School-Administered End-of-Grade Tests for the Honduran Assessment System

Fernando Rubio, Guatemala Minsterio de Educacion, Cristina Perdomo, Guatemala Minsterio de Educacion
Educational Assessment in Guatemala: Antecedents, Current Situation, and Challenges

Ari Kanjee, Centre for Education Quality Improvement, Human Sciences Research Council, South Africa, Godwin Khosa, Centre for Education Quality Improvement, Human Sciences Research Council, South Africa
New Assessments and Education Transformations in South Africa

Discussants
Michael Rodriguez, University of Minnesota
Luz Bay, Measured Progress, Inc.

Monday, April 29
2:30 p.m.–4:15 p.m., Laurel Hill, 4th Floor
Individual Session, H4

Testlets

Moderator
Hirotaka Fukuhara, Pearson

Presenters
Hong Jiao, University of Maryland, College Park, Akihito Kamata, University of Oregon, Anna Van Wie, University of Maryland, College Park, Yong Luo, University of Maryland, College Park
A Multilevel Testlet Model for Multiple Hierarchical Levels of Person Clustering Effects

Ying-Fang Chen, University of Maryland, College Park, Hong Jiao, University of Maryland, College Park, Matthias von Davier, Educational Testing Service
Comparison of Different Approaches to Dealing with Testlet Effects in Mixture Item Response Theory Modeling

Andreas Frey, Friedrich-Schiller-University Jena, Nicki Seitz, Friedrich-Schiller-University Jena
Testlet-Based Multidimensional Adaptive Testing

Feifei Li, Educational Testing Service
A Modified Information Correction Method for Testlet-Based Test Analysis: Correction Ratio Conditional on Ability Intervals

Jennifer Galindo, University of Texas at Austin, Ryoungsun Park, University of Texas at Austin, Barbara Dodd, University of Texas at Austin
The Effects of Test Structure, Routing Test Length, and Total Test Length on Multistage Testing Using the 3PL-Testlet Response Theory Model

Discussant
Frank Rijmen, Educational Testing Service

Monday, April 29
2:30 p.m.–4:15 p.m., Telegraph Hill, 4th Floor
Individual Session, H5

Cognitive Diagnostic Models (I)

Moderator
Pei-Hua Chen, National Chiao Tung University

Presenters
Wang Wenyi, Jiangxi Normal University, Ding Shuliang, Jiangxi Normal University, Song Lihong, Jiangxi Normal University
New Q-Matrix Validation Methods and Their Sensitivity Under the DINA Model

Yan Huo, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey
Data-Driven Q-Matrix Specification for Subsequent Test Forms

Cigdem Alagoz Ekici, University of Georgia, Seock-Ho Kim, University of Georgia, Allan Cohen, University of Georgia
Item Fit Evaluation for Higher-order DINA Model under the Q-Matrix Misspecification With a Bayesian Approach

Guaner Rojas, Universidad Autonoma de Madrid, Jimmy de la Torre, Rutgers, The State University of New Jersey, Julio Olea, Universidad Autonoma de Madrid
Differential Item Functioning Assessment Using the DINA Model

Matthew Johnson, Teachers College, Columbia University, Young-Sun Lee, Teachers College, Columbia University, Ruchi Sachdeva, Teachers College, Columbia University, Jianzhou Zhang, Teachers College, Columbia University, Jung Yeon Park, Teachers College, Columbia University
Examination of Gender Differences Using the Multiple Groups DINA Model

Supin Hung, National Taiwan Normal University, Pohsi Chen, National Taiwan Normal University
Two Modified Higher-Order Cognitive Diagnostic Models for Detecting Differential Item Functioning

Discussant
André Rupp, University of Maryland

Monday, April 29
2:30 p.m.–4:15 p.m., Twin Peaks, 4th Floor
Individual Session, H6

Growth (II)

Moderator
Zhenqiu (Laura) Lu, University of Georgia

Presenters
Ying Li, American Institutes for Research, Frank Rijmen, Educational Testing Service
Full-information Bifactor Growth Model for Longitudinal Data

Hung-Yu Huang, Taipei Municipal University of Education
Measuring Latent Growth under the Multilevel Higher-Order Item Response Theory Model

Chalie Patarapichayatham, University of Oregon, Joseph Nese, University of Oregon, Daniel Anderson, University of Oregon
Within-Year Grade 2 Math Growth: Using a 2PL Second-Order Item Response Theory Growth Model

Minjeong Jeon, University of California, Berkeley, Sophia Rabe-Hesketh, University of California, Berkeley
Autoregressive IRT Growth Model for Longitudinal Item Analysis

Jodi Casabianca, Carnegie Mellon University/RAND Corporation, Brian Junker, Carnegie Mellon University
Hierarchical Rater Models for Longitudinal Assessments

Discussant
Dan Bolt, University of Wisconsin, Madison

Monday, April 29
2:30 p.m.–4:15 p.m., Union Square, 3rd Floor
Individual Session, H7

Subgroups in Equating

Moderator
Linda Cook, Educational Testing Service

Presenters
Anne Corinne Huggins, University of Florida, Randall Penfield, University of North Carolina at Greensboro
Determining the Source of Uneven Equating Invariance Across the Score Range of Assessments

Jaime Cid, Educational Testing Service, Ilyse Spitalny, Educational Testing Service
Investigating the Effect of Language on the Invariance of Equating Functions in Paper-and-Pencil and Computer-Based Tests

Tess Dawber, CTB/McGraw-Hill, Hyeon-Joo Oh, Educational Testing Service
Estimation of Population Invariance in True Score Equating for Special Education and Non-Special Education Student Groups

Discussant
Linda Cook, Educational Testing Service

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

Organizers
Ian Hembry, University of Texas at Austin
Allison Chapman, Queen's University
David King, Georgia Institute of Technology
Xiao Luo, University of Illinois at Chicago
Jeffrey Patton, University of Notre Dame
Amanda Soto, University of Massachusetts, Amherst

Presenters
#1
Angela Blood, University of Illinois at Chicago; Yoon Soo Park, University of Illinois at Chicago, Rimas Lukas, University of Chicago; James Brorson, University of Chicago
The Reliability of a Neurology Clerkship Objective Structured Clinical Examination (OSCE) as Examined Through a Generalizability Study

#2
Daniel Bowen, Measurement Incorporated
The Effects of Controlling for Distributional Differences on the Jodoin-Gierl Logistic Regression DIF Classification Method

#3
Okan Bulut, University of Minnesota, Adnan Kan, Gazi University
Examining the Relationship Between Gender DIF and Item Type Using Explanatory IRT

#4
Kevin Cappaert, University of Wisconsin, Milwaukee, Cindy M. Walker, University of Wisconsin, Milwaukee, Bo Zhang, University of Wisconsin, Milwaukee
Partial Cancellation in Differential Bundle Functioning: Influences on the Beta Statistic, Standard Error of the Beta Statistic, Detection Rate, and Ability

#5
Allison Chapman, Queen's University, Irvin R. Katz, Educational Testing Service, Yigal Attali, Educational Testing Service, Priya Kannan, Educational Testing Service
The Role of Working Memory in Experts' Standard-Setting Judgments

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#6
Yue Chen, University of British Columbia, Bruno D. Zumbo, University of British Columbia
Testing for Measurement Invariance in PISA 2009 Reading

#7
Haiqin Chen, University of Missouri, Ze Wang, University of Missouri, Columbia, Paul Speckman, University of Missouri, Columbia, Jie Zhang, University of Missouri, Columbia
Testlet Effects and Ability Estimation Methods Influence on Person Misfit Detection

#8
Jiwon Choi, Yonsei University, Yu-Kyung Oh, Yonsei University, Guemin Lee, Yonsei University
Applications of Linear Logistic Test Model to Investigate the Effect of Item Formats and Cognitive Features on Item Difficulty

#9
Joseph Kui Foon Chow, The Hong Kong Institute of Education
The Person-Centered Approach in Large-Scale Educational Assessment and its Implications for Comparative Citizenship Education Studies

#10
Amy Clark, University of Kansas
The Effect of Item Ordering on Examinee Performance: A Synthesis of 60 Years of Research

#11
Yin Fu, University of South Carolina, Brian Habing, University of South Carolina
Making Fair Comparisons Between Compensatory Model and Noncompensatory Model

#12
Yong He, University of Missouri, Ping Yang, University of Missouri, Columbia, Steven J. Osterlind, University of Missouri, Columbia
Weighted Moment Approaches in Scale Transformation for IRT Equating

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#13
Charles Iaconangelo, Rutgers, The State University of New Jersey, Kaplan Mehmet, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey
A Likelihood-Ratio Approach to Q-matrix Comparison Within a General Model Framework

#14
Yoonsun Jang, Universiry of Georgia, Tugba Karadavut, Universiry of Georgia
Evaluation of Cut Scores Determined Based on Contrasting Group Method and Item Descriptor Matching Method (IDM) by Using the Mixture Rasch Model

#15
Hyesuk Jang, Michigan State University
Quality Evaluation of Kernel Equating According to Score Distributions

#16
Daniel Jurich, James Madison University, Christine E. DeMars, James Madison University
Confirmatory Factor Analysis with Dichotomous Data: Does Unmodeled Guessing Affect Fit and Parameter Recovery?

#17
Ja Young Kim, University of Iowa
Sample Size and Item Parameter Recovery of Generalized Partial Credit Model

#18
Sohee Kim, Sungshin Women's University, Yoonju Kim, Sungshin Women's University, Chanho Park, Korea Institute for Curriculum and Evaluation, Taehoon Kang, Sungshin Women's University
A Simulation Study Investigating the Performance of S-X^2 Under the Rasch Model

#19
Syed Muhammad Fahad Latifi, University of Alberta, Mark J. Gierl, University of Alberta, Hollis Lai, University of Alberta, Karen Fung, University of Alberta
Establishing Item Uniqueness for Automatic Item Generation

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#20
HyeSun Lee, University of Nebraska, Lincoln, Kurt F. Geisinger, University of Nebraska, Lincoln
Efficiency of Generalized Full Information Bifactor Model

#21
Cheng-Hsien Li, Michigan State University
Confirmatory Factor Analysis with Ordinal Data: The Impacts of the Observed Distribution and the Number of Categories

#22
Xin Luo, Michigan State University, Liyang Mao, Michigan State University
The Comparison of the Unidimensional and Multidimensional CAT Composite Score in Different Dimension Correlation Situations

#23
King Luu, Queen's University, Stefanie Sebok, Queen's University, Don A. Klinger, Queen's University
Examining the Consistency of Medical Admissions Noncognitive Assessments

#24
Lin Ma, University of Denver, Kathy E. Green, University of Denver
Validation of Cognitive Attribute Matrix in the TIMSS Mathematics

#25
Liyang Mao, Michigan State University, Xin Luo, Michigan State University, Xuechun Zhou, Pearson
The Effect of Item Pool Assembling on Computerized Classification Test

#26
Kimberly Marsh, James Madison University, Carol L. Barry, The College Board
Assessing the Academic Rigor of High School Course Offerings and Student Course Completion

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#27
Thomas McCoy, University of North Carolina at Greensboro, Jia Ma, University of North Carolina at Greensboro, Aundrea Carter, University of North Carolina at Greensboro
A SAS® Macro for Standardized Augmented Subscores

#28
Amin Mousavi, University of Alberta, Ying Cui, University of Alberta
Evaluate the Performance of lz and lz of Person Fit: A Simulation Study*

#29
Ling Ning, University of Wisconsin, Milwaukee, Cindy M. Walker, University of Wisconsin, Milwaukee, Shuwen Tang, University of Wisconsin, Milwaukee
DIF Purification Strategies in MIRT

#30
Jeong Hwa Oh, Yonsei University, Guemin Lee, Yonsei University, Juyeon Lee, Yonsei University, Yulim Kang, Yonsei University
The Relationship Between Item Discrimination and Item Fit Based on Graded Response Model and Generalized Partial Credit Model

#31
Jaime Peterson, University of Iowa, Anthony D. Fina, University of Iowa, Alan Huebner, University of Notre Dame
The Effect of Item Parameter Drift on Classification Accuracy and Consistency in Computerized Classification Tests

#32
Chloe Ruff, Virginia Tech
Validation of the Motivated Strategies for Learning Questionnaire (MSLQ) for Use Within First Year Seminars

#33
MinJeong Shin, University of Massachusetts, Amherst
Equating Testlet-Based Tests Using Universe Score Estimates From a Generalizability Theory Approach

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#34
Ahyoung Shin, University of Iowa, Won-Chan Lee, University of Iowa
Applying Rasch Model for Estimating Conditional Standard Errors of Measurement for Composite Scale Scores

#35
Lucas Stern, University of North Carolina at Greensboro, Bob Henson, University of North Carolina at Greensboro
Detection of DIF Using a Principal Cluster Axis Analysis

#36
Shannon Sung, University of Gerogia, Ji Shen, University of Georgia, Seock-Ho Kim, University of Georgia
Using Separate and Concurrent Equating Methods to Link Two Instruments for Assessing Undergraduate Students' Energy Understanding Across Disciplines

#37
Ragip Terzi, Rutgers, The State University of New Jersey, Youngsuk Suh, Rutgers, The State University of New Jersey
An Odds Ratio Approach for DDF Detection Under the Nested Logit Model

#38
Bing Tong, Michigan State University, Chi Chang, Michigan State University
An Investigation of Factors Affecting Student Mathematics Growth

#39
Anna Topczewski, University of Iowa, Shalini Kapoor, University of Iowa, Paula Cunningham, University of Iowa
Examining the Parameter Recovery of BILOG-MG 3 and WinBUGS 1.4.3

#40
Juan Valdivia Vazquez, Washington State University, Hsiao-Ju Yen, Washington State University, Brian F. French, Washington State University
A Multitrait-Multimethod Analysis of the IED-III Socio-Emotional Parent and Examiner Ratings

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#41
Ryan Walters, University of Nebraska, Lincoln, Jonathan Templin, University of Georgia, Lesa Hoffman, University of Nebraska, Lincoln
The Effects of Interdependent Data on Item Calibration

#42
Kun Wang, Texas A&M University, Commerce
Cross-Cultural Applications of the MMPI-2: A Literature Review

#43
Ting Wang, University of Washington, Derek Yiran Zhao, University of Washington, Seattle, Erich Birkby, University of Colorado, Denver, Maria Araceli Ruiz-Primo, University of Colorado, Denver, Min Li, University of Washington, Seattle
Knowledge of Learning Goals as a Navigation Tool in Curriculum Implementation

#44
Xi Wang, University of Massachusetts, Amherst, Craig S. Wells, University of Massachusetts, Amherst, Ronald Hambleton, University of Massachusetts, Amherst
Identifying Consequential Item Parameter Drift in Mixed-Format Test

#45
Raffaela Wolf, University of Pittsburgh, Suzanne Lane, University of Pittsburgh
Equating Under Small Sample Sizes

#46
Jing-Ru Xu, Michigan State University
Item Selection Optimization in CAT Early Stage with the Nominal Response Model

#47
Fan Yang, University of Iowa, Ying-Ju Hsu, University of Iowa, David Shin, Pearson
A Comparative Study of Two Conditional Item Exposure Control Methods in Computerized Adaptive Testing

Monday, April 29
2:30 p.m.–4:15 p.m., Pacific Terrace, 4th Floor, H8

GRADUATE STUDENT ISSUES COMMITTEE
Graduate Student Media Session

#48
Zao Zhang, Rutgers, The State University of New Jersey, Soo Youn Lee, Rutgers, The State University of New Jersey, Jinsong Chen, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey
Making the 2000 PISA Reading More Diagnostic: Model-Data Misfit Detection and Q-Matrix Refinement

#49
Jingshun Zhang, Ontario Institute for Studies in Education, University of Toronto, Ruth A. Childs, Ontario Institute for Studies in Education, University of Toronto, Eunice E. Jang, Ontario Institute for Studies in Education, University of Toronto
An Investigation of the Effect of Missing Responses on the RRUM

#50
Yan Zhou, Indiana University, Bloomington, Leslie Ann Rutkowski, Indiana University, Bloomington
The Item Position Effect in PISA 2009 Mathematics Test

Monday, April 29
4:30 p.m.–6:00 p.m., Grand Ballroom A, 3rd Floor
Invited Session, I1

Test Security Coordinated Sessions II: Policy and Applied Issues

Organizer
Gregory J. Cizek, University of North Carolina at Chapel Hill

Moderator
Neal Kingston, University of Kansas

Presenters
Robert Wilson, Governor's Task Force, State of Georgia
Investigating and Interviewing when Cheating is Suspected

Greg Toppo, USA Today
Reporting on Suspected Cheating: Issues and Concerns

Joseph Martineau, Michigan Department of Education, Smarter Balanced Consortium
Test Security in the Context of Developing Computer-Based Common Core Assessments

Kristen Huff, Regents Research Fund New York
NCME Model Policy on Test Score Integrity

John Olson, Lead Member, Guidebook Development Project
CCSSO/Technical Issues in Large Scale Assessment (TILSA) SCASS Comprehensive Guidebook on Test Security

Discussants
Ardeshir Geranpayeh, University of Cambridge
Sue Rigney, U.S. Department of Education

Monday, April 29
4:30 p.m.–6:15 p.m., Grand Ballroom B, 3rd Floor
Invited Session, I2

AWARDS COMMITTEE
Award-Winning Research from the 2012 NCME Award Recipients

Chair
Deborah Harris, Board Liaison for the Award Committees

Presenters
Derek Briggs
Annual Award Winner

Zhushan Li
Brenda H. Loyd Outstanding Dissertation Award Winner

Ying Cheng
Jason Millman Promising Measurement Scholar Award Winner

Matthias von Davier
Bradley Hanson Award for Contributions to Educational Measurement Award Winner

Han Kyung
Alicia Cascallar Award for an Outstanding Paper by an Early Career Scholar Award Winner

Monday, April 29
4:30 p.m.–6:00 p.m., Grand Ballroom C, 3rd Floor
Individual Session, I3

Computer Based Testing (II)

Moderator
Liru Zhang, Delaware Department of Education

Presenters
Lihua Yao, Defense Manpower Data Center, Mary Pommerich, Defense Manpower Data Center, Dan Segall, Defense Manpower Data Center
Using Multidimensional CAT to Administer a Short, Yet Precise, Screening Test

Jinming Zhang, University of Illinois at Urbana-Champaign
A Dimensionality Analysis Procedure for Computerized Adaptive Testing

Yaacov Petscher, Florida Center for Reading Research/Florida State University
Differential Specifications of the Bi-factor Model for Computer Adaptive Testing

Hanwook Yoo, Educational Testing Service, Ronald Hambleton, University of Massachusetts, Amherst
Evaluating the Impact of Poor Prior Information on Multidimensional Adaptive Testing

Discussant
Julie Miles, Pearson

Monday, April 29
4:30 p.m.–6:00 p.m., Laurel Hill, 4th Floor
Individual Session, I4

Statistics

Moderator
Minjeong Jeon, University of California, Berkeley

Presenters
Xin (Lucy) Liu, Data Recognition Corporation, David Chayer, Data Recognition Corporation, Fu Liu, University of North Carolina at Greensboro, Mayuko Simon, Data Recognition Corporation
A Bayesian Hierarchical Modeling Approach for Detecting Suspicious Schools in Data Forensics Studies

Zhenqiu (Laura) Lu, University of Georgia, Zhiyong Zhang, University of Notre Dame, Allan Cohen, University of Georgia
Bayesian Model Selection Criteria for Latent Growth Models

Yu Zhang, Federation of State Boards of Physical Therapy, Aijun Wang, Federation of State Boards of Physical Therapy, Lorin Mueller, Federation of State Boards of Physical Therapy
Issues of Sample Power in Analyzing Discrimination of Multiple-Choice Items

Michelle LaMar, University of California, Berkeley, Anna Rafferty, University of California, Berkeley, Tom Griffiths, University of California, Berkeley
Diagnosing Student Understanding Using Markov Decision Process Models

Yufeng Chang, University of Minnesota, Mark L. Davison, University of Minnesota
Investigation of Collinearity, Validity, and Sample Size on Power and Type I Errors in Profile Analysis

Discussant
Matthew Johnson, Teachers College, Columbia University

Monday, April 29
4:30 p.m.–6:00 p.m., Telegraph Hill, 4th Floor
Coordinated Session, I5

Advances in Automatic Item Generation

Organizer
Patrick Kyllonen, Educational Testing Service

Moderator
Jonas Bertling, Educational Testing Service

Presenters
Jonas Bertling, Educational Testing Service, Alexander Freund, Leuphana University, Heinz Holling, University of Muenster
Rule-Based Generation of Number Series Items – Predicting Item Parameters for Parallel Test Forms Based on Explanatory Item Response Models With Random Effects

Susan Embretson, Georgia Institute of Technology, John Poggio, University of Kansas
Psychometric Standards for Automatically Generated Items

Mark Gierl, University of Alberta, Hollis Lai, University of Alberta, Karen Fung, University of Alberta, Fahad Latifi, University of Alberta
Developing and Evaluating Methods to Automatically Generate Items in Multiple Languages

Isaac Bejar, Educational Testing Service
On the Feasibility of Generating Situational Judgment Tests by Means of Animation

Discussant
Richard Luecht, University of North Carolina at Greensboro

Monday, April 29
4:30 p.m.–6:00 p.m., Twin Peaks, 4th Floor
Individual Session, I6

Cognitive Diagnostic Models (II)

Moderator
Marianne Perie, University of Kansas

Presenters
Amy Clark, University of Kansas, Neal Kingston, University of Kansas
Validation of a Cognitive Diagnostic Model of Reading Comprehension

Hollis Lai, University of Alberta, Mark Gierl, University of Alberta
Evaluating Granularity of Skills in Diagnostic Assessment: An application of the HCI and ICI

Angela Broaddus, University of Kansas, Melinda Montgomery, University of Kansas
Using a Cognitive Diagnostic Model to Evaluate and Revise a Formative Assessment

Robert Kirkpatrick, Pearson, Changjiang Wang, Pearson, David Shin, Pearson, Yuehmei Chien, Pearson, Joshua Goodman, Pacific Metrics Corporation
Profile Classification for Cognitive Diagnostic Assessment: A Simulation Study

Discussant
Jonathan Templin, University of Georgia

Monday, April 29
4:30 p.m.–6:00 p.m., Union Square, 3rd Floor
Coordinated Session, I7

Research and Development on Assessment and Accountability for Special Education

Organizer
Joseph Stevens, University of Oregon

Moderator
Joseph Stevens, University of Oregon

Presenters
Gerald Tindal, University of Oregon, Joseph Nese, University of Oregon
Within-Year Achievement Growth Trajectories Using Progress Monitoring Measures

Shawn Irvin, University of Oregon, Joseph Nese, University of Oregon, Gerald Tindal, University of Oregon
Learning to Read: A Review of Research on Growth in Reading Skills

Ann Schulte, Arizona State University, Joseph Stevens, University of Oregon
Special Education Growth: Contrasting Stable and Variable Identification of Special Education Student Status across Grades

Joseph Stevens, University of Oregon, Ann Schulte, Arizona State University
Reading Achievement Growth at the Student and School Levels for Regular and Special Education Elementary Students

Gina Biancarosa, University of Oregon, Keith Zvoch, University of Oregon, Joseph Stevens, University of Oregon, Ann Schulte, Arizona State University
School Effects on the Middle School Reading Achievement of Students with Disabilities: A Multilevel, Longitudinal Analysis

Discussant
H. Gary Cook, University of Wisconsin, Madison

Tuesday, April 30
5:45 a.m.–7:30 a.m., InterContinental Hotel Lobby

NCME Fitness Run/Walk

Organizers

Brian F. French, Washington State University
Jill van den Heuvel, Alpine Testing Solutions

Run a 5K or walk a 2.5K course in San Francisco on Crissy Field. Meet in the lobby of the NCME hotel at 5:45 a.m. Pre-registration is required. Pickup your bib number and sign your liability waiver at the NCME Information Desk in the InterContinental Hotel anytime prior to the run.

The event is made possible through the sponsorship of:

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- National Board of Medical Examiners
- National Council of State Boards of Nursing, Inc.
- Pacific Metrics Corporation
- Pearson Educational Measurement
- Pearson VUE
- Questar Assessment, Inc.
- Riverside Publishing

Tuesday, April 30
8:00 a.m.–9:45 a.m., Grand Ballroom A, 3rd Floor
Invited Session, J1

Analysis of Topics in *JEM*, *EM:IP* and NCME Program Bulletins

Organizer
Anita Rawls, The College Board

Chairs
Anita Rawls, The College Board
Gretchen Anderson, University of Kansas
Neal Kingston, University of Kansas

Presenters
Danette McKinley, Foundation for Advancement of International Medical Education and Research, Jade Caines, University of Pennsylvania, Hongli Li, Georgia State University, Gerald Melican, The College Board, Anita Rawls, The College Board, Young Yee Kim, American Institutes for Research, Irene Barry, Walden University
Test Development and Theory

Mary Roduta Roberts, University of Alberta, Jade Caines, University of Pennsylvania, Danette McKinley, Foundation for Advancement of International Medical Education and Research, Gerald Melican, The College Board, Anita Rawls, The College Board, Hongli Li, Georgia State University, WeiWei Yang, Georgia State University, Chad Gotch, Washington State University
Score Use and Fairness in Testing

Chad Gotch, Washington State University, Jennifer Kobrin, The College Board, Kim Colvin, University of Massachusetts, Amherst, Mary Roduta Roberts, University of Alberta, Danette McKinley, Foundation for Advancement of International Medical Education and Research, Gretchen Anderson, University of Kansas
Various Aspects of Testing

Discussants
Brian Clauser, National Board of Medical Examiners
Ronald Hambleton, University of Massachusetts, Amherst
Jacqueline P. Leighton, University of Alberta, Edmonton

Tuesday, April 30
8:00 a.m.–9:45 a.m., Grand Ballroom B, 3rd Floor
Individual Session, J2

Test Design

Moderator
Michael Jodoin, National Board of Medical Examiners

Presenters
Kirk Becker, Pearson, Harini Soni, Pearson
Improving Psychometric Feedback for Innovative Test Items

Xuechun Zhou, Michigan State University, Mark Reckase, Michigan State University
Designing p-Optimal Item Pools in Computerized Adaptive Tests with Polytomous Items

Laura Kramer, University of Kansas
Item Writing in Content-Based Context: Window Dressing or Power Dressing?

Matthew Burke, American Institute of Certified Public Accountants, Joshua Stopek, American Institute of Certified Public Accountants
Developing a Better Test Specification: Using Assessment Engineering to Guide a Practice Analysis

N. Scott Bishop, ACT, Inc., Kyoungwon Bishop, Pearson
The Effects of Embedded Field Test Items on Operational Test Scores

Discussant
Neal Kingston, University of Kansas

Tuesday, April 30
8:00 a.m.–9:45 a.m., Grand Ballroom C, 3rd Floor
Individual Session, J3

Large Scale

Moderator
Sonya Powers, Pearson

Presenters
Leslie Rutkowski, Indiana University, Dubravka Svetina, Indiana University
Assessing the Hypothesis of Measurement Invariance in the Context of Large-Scale Assessments

Jiahe Qian, Educational Testing Servce, Shelby Haberman, Educational Testing Service
An Investigation of Outlier Pseudo Estimates in Paired Grouped Jackknifing

Xueli Xu, Educational Testing Service
Multidimensional IRT Models for Survey Assessments

Amin Mousavi, University of Alberta
Analyzing Data From Educational Surveys: A Comparison of HLM and Multilevel IRT

Matthew Johnson, Teachers College, Columbia University, Young-Sun Lee, Teachers College, Columbia University, Jung Yeon Park, Teachers College, Columbia University, Jianzhou Zhang, Teachers College, Columbia University, Ruchi Sachdeva, Teachers College, Columbia University
Comparing Attribute Distribution Across Countries: Application to TIMSS 2007 Mathematics

Discussant
Matthias von Davier, Educational Testing Service

Tuesday, April 30
8:00 a.m.–9:45 a.m., Laurel Hill, 4th Floor
Individual Session, J4

Validity—Connecting Assessment and Learning

Moderator
Paul Nichols, Pearson

Presenters
Susan Brookhart, Brookhart Enterprises LLC
Reconstructing Validity Arguments for Classroom Achievement Measures over the Last Century: What the Changes Say About Classroom Assessment and Validity Today

Saad Chahine, Mount Saint Vincent University
Investigating Educators' Statistical Literacy and Score Report Interpretation

Chad Buckendahl, Alpine Testing Solutions
A Practitioner's Guide to Validation Framework Development

Nathan Dadey, University of Colorado, Boulder, Derek Briggs, University of Colorado, Boulder
The Curious Case of Linking Items With p-Value Reversals

Charles Secolsky, County College of Morris, Eric Magaram, Rockland Community College, Peter Arvanites, Rockland Community College, Bruce Kossar, Independent Consultant, Stephen Levy, St. Peter's University
Improving Validity by Assessing Students' Thought Processes and Perceived Conceptual Distances on Classroom Tests

Discussant
April Zenisky, University of Massachusetts, Amherst

Tuesday, April 30
8:00 a.m.–9:45 a.m., Telegraph Hill, 4th Floor
Coordinated Session, J5

Pre-Equating in Large Scale Assessment

Organizer
Hyeon-Joo Oh, Educational Testing Service

Moderator
Joyce Wang, Educational Testing Service

Presenters
Joyce Wang, Educational Testing Service, Amanda Merwede, Educational Testing Service
A Literature Survey of Pre-Equating Test Design

Huan Wang, CTB/McGraw-Hill, Bin Wei, CTB/McGraw-Hill
Using Linguistic Profiles of Test Items to Improve Stability and Efficiency of Pre-Equating in English Language Proficiency Assessment

Sharon Slater, Educational Testing Service, Sam Chung, Educational Testing Service, Carolyn Wentzel, Educational Testing Service
Comparison of Pre-Equated and Post-Equated Results of a Large Scale Assessment at the Test and Item Level

Hyeon-Joo Oh, Educational Testing Service, James Carroll, Educational Testing Service
Comparison of Pre-Equating and Post-Equating: Does Pre-Equating Really Work?

Liane Patsula, Educational Testing Service, Lin Lin, Educational Testing Service, Rich Schwarz, Educational Testing Service
To Use or Not to Use Existing Items in the Context of New Content Standards and a Pre-Equated Test Design

Discussant
Anne Fitzpatrick, Willow Farm

Tuesday, April 30
8:00 a.m.–9:45 a.m., Twin Peaks, 4th Floor
Coordinated Session, J6

Innovative Assessments in Practice: The Technology and Engineering Literacy Assessment

Organizer
Zhan Shu, Educational Testing Service

Moderator
Andreas Oranje, Educational Testing Service

Presenters
David Williamson, Educational Testing Service, Malcolm Bauer, Educational Testing Service
How Evidence Centered Design Helped Organize an Assessment of Technology and Engineering Literacy

Lonnie Smith, Educational Testing Service
Scenario-Based Interactive Task Design for Assessing Technology and Engineering Literacy

Madeleine Keehner, Educational Testing Service, Lonnie Smith, Educational Testing Service
Connecting Actions, Cognitions, and Measurement: The Role of Cognitive Science in NAEP TEL Task Development

Zhan Shu, Educational Testing Service, Xueli Xu, Educational Testing Service, Jia Yue, Educational Testing Service
The Application of Bi-Factor Model in NAEP Operational Settings

Discussants
Richard Luecht, University of North Carolina at Greensboro
Steve Ferrara, Pearson

Tuesday, April 30
8:00 a.m.–9:45 a.m., Union Square, 3rd Floor
Coordinated Session, J7

Advances in Analysis of Process Data From Game-Based Assessments

Organizer
Kristen DiCerbo, Pearson

Moderator
Kristen DiCerbo, Pearson

Presenters
Valerie Shute, Florida State University, Matthew Ventura, Florida State University, Matthew Small, Florida State University
Capturing Performance Data in Newton's Playground

Kristen DiCerbo, Pearson
Evidence Identification and Accumulation from Log File Data

Deirdre Kerr, Center for Research on Evaluation, Standards, and Student Testing/ University of California, Los Angeles, Gregory Chung, Center for Research on Evaluation, Standards, and Student Testing/University of California, Los Angeles
Using Log Data Analysis to Identify Common Misconceptions across Games

David Shaffer, University of Wisconsin, Madison, Padraig Nash, University of Wisconsin, Madison
Epistemic Network Analysis: Measuring Thinking in Digital Games

Discussant
John Behrens, Pearson

Tuesday, April 30
10:00 a.m.–11:45 a.m., Grand Ballroom A, 3rd Floor
Invited Session, K1

JOINT CCSSO/NCME INVITED SESSION
Different but Comparable: Measurement Considerations for Policy Uses for Scores From the PARCC and Smarter Balanced Assessment Consortia

Organizer
Brian Gong, National Center for the Improvement of Educational Assessment

Chair
Henry Braun, Boston College

Presenters
Derek Briggs, University of Colorado, Boulder
Summary of SBAC and PARCC Consortia

John Mazzeo, Educational Testing Service
Types of Test Score Comparability: How to Know, How to Achieve It

Lauress Wise, HumRRO
Real Work in an Imperfect World: Applying What is Known From VNT, NAEP, States, and Other Programs

Mitchell Chester, CCSSO & PARCC
Balancing the Perfect and the Good

Tom Luna, CCSSO & Smarter Balanced Assessment Consortia
What Individual States Need, What Collective Action Can Provide

Tuesday, April 30
10:00 a.m.–11:45 a.m., Grand Ballroom B, 3rd Floor
Invited Session, K2

Games and Assessment: Psychometrics Meets Fun

Organizer
Kristen DiCerbo, Pearson

Presenters
Katie Salen, Institute of Play
Getting to Go: The Collaborative Art of Game-Based Assessments

Valerie Shute, Florida State University
Stealth Assessment: Making Inferences From Game Play

Robert Mislevy, Educational Testing Service
Three Things Game Designers Need to Know About Assessment

Zoran Popovic, University of Washington
Optimizing Student/Teacher Ecosystem With Game-Based Active Assessment

Tuesday, April 30
10:00 a.m.–11:45 a.m., Grand Ballroom C, 3rd Floor
Individual Session, K3

Standard Setting

Moderator
Ye Tong, Pearson

Presenters
William Skorupski, University of Kansas, Cameron Clyne, University of Kansas
The Bayesian Angoff Method: An Approach to Modeling the Panelist-Item Interaction for Determining Cutscores in Angoff Standard Setting

Priya Kannan, Educational Testing Service, Adrienne Sgammato, Educational Testing Service, Richard Tannenbaum, Educational Testing Service, Irvin Katz, Educational Testing Service
Using Subsets of Items to Estimate Minimal Competency Cut-Scores: A G-Theory Approach

Susan Davis-Becker, Alpine Testing Solutions, Patricia Crum, Millard Public Schools
Item Writers as Standard Setting Panelists: Does Prior Experience Matter?

Adam Wyse, Michigan Department of Education
The Issue of Range Restriction in Bookmark Standard Setting

Hua Wei, Pearson, Lihua Yao, Defense Manpower Data Center
A Comparison of IRT Linking and Trend Scoring in Mixed-Format Test Equating

Gary Skaggs, Virginia Tech, Serge Hein, Virginia Tech, Jesse Wilkins, Virginia Tech
Diagnostic Profiles: A Method for Determining a Performance Standard on a Test Developed from a Cognitive Diagnostic Model (CDM)

Andrew Ho, Harvard Graduate School of Education
Off Track: Problems With "On Track" Inferences in Empirical and Predictive Standard Setting

Discussant
Mary Pitoniak, Educational Testing Service

Tuesday, April 30
10:00 a.m.–11:45 a.m., Laurel Hill, 4th Floor
Individual Session, K4

Differential Item Functioning (II)

Moderator
Anne Corinne Huggins, University of Florida

Presenters
Rebecca Zwick, Educational Testing Service, Lei Ye, Educational Testing Service, Steven Isham, Educational Testing Service
The Bayesian Updating DIF Procedure: New Findings and Extensions

Ken Fujimoto, University of Illinois at Chicago, George Karabatsos, University of Illinois at Chicago
The Dependent Dirichlet Process Rating Model for DIF Analysis

Joe Grochowalski, Fordham University
Detection of Differential Item Functioning in Dichotomous and Polytomous Items: The Exploratory Correspondence Analysis Method

Alexander Naumann, DIPF–German Institute for International Educational Research/IDeA Research Center, Jan Hochweber, DIPF–German Institute for International Educational Research, Johannes Hartig, DIPF–German Institute for International Educational Research
Modeling Instructional Sensitivity Using a Longitudinal Multilevel Differential Item Functioning Approach

Ronna Turner, University of Arkansas, Elizabeth Keiffer, University of Arkansas
Impact of Unbalanced DIF Item Proportions on Group-Specific DIF Identification Using a Two-Step Purification Process

Discussant
Seock-Ho Kim, University of Georgia

Tuesday, April 30
10:00 a.m.–11:45 a.m., Telegraph Hill, 4th Floor
Individual Session, K5

Accommodations—Time Pressure and Pacing, Read Aloud, Item Design

Moderator
Michelle Vanchu-Orosco, University of Denver

Presenters
Amanda Ferster, University of Kansas, Jonathan Templin, University of Georgia
An Evaluation of Item Design Features via a Random Effects Extension of the Linear Logistic Test Model

Hongli Li, Georgia State University
The Effects of the Read-Aloud Accommodation for Students With and Without Disabilities: A Meta-Analysis Using HLM

Eileen Talento-Miller, Graduate Management Admission Council, Lawrence Rudner, Graduate Management Admission Council, Duncan McGillivary, Graduate Management Admission Council
Time Pressure and Pacing for Examinees With and Without Accommodations

Discussant
Brent Bridgeman, Educational Testing Service

Tuesday, April 30
10:00 a.m.–11:45 a.m., Twin Peaks, 4th Floor
Coordinated Session, K6

Perspectives on College Readiness Assessments for Growth

Organizer
Jennifer Merriman, The College Board

Moderator
Jennifer Merriman, The College Board

Presenters
Thanos Patelis, The College Board, Jennifer Merriman, The College Board, Carol Barry, The College Board, Haifa Matos-Elefonte, The College Board, Kara Smith, The College Board
Modeling Student Growth Using College Readiness Assessments

Catherine Welch, University of Iowa, Stephen Dunbar, University of Iowa
Tracking Growth Towards Readiness: A State's Perspective

Susan Loomis, National Assessment Governing Board
The Role of NAEP in Understanding Growth Towards College Readiness

Discussant
Scott Marion, National Center for the Improvement of Educational Assessment

Tuesday, April 30
10:00 a.m.–11:45 a.m., Union Square, 3rd Floor
Coordinated Session, K7

Symposium on Consortia Research Agendae: Critical Opportunities and Challenges Facing Next-Generation Assessment Systems

Organizer
Pascal Forgione, Educational Testing Service

Moderator
Pascal Forgione, Educational Testing Service

Presenters
Nancy Doorey, Educational Testing Service
A Game Changer in Educational Measurement: The PARCC & Smarter Balanced Assessment Designs and Their Potential for Educational Research

Kristen Huff, Regents Research Fund New York
The PARCC Consortium Research Agenda

Joseph Martineau, Michigan Department of Education and Smarter Balanced Assessment Consortium (Smarter Balanced)
The Smarter Balanced Consortium Research Agenda

Robert Brennan, University of Iowa
A Comparability Perspective

Discussants
Andrew Porter, University of Pennsylvania
Michael Kane, Educational Testing Service

Tuesday, April 30
12:15 p.m.–2:00 p.m., Grand Ballroom B, 3rd Floor
(Invited) Debate of Day, L1

"College and Career Ready": Incompatible Buzzwords

Chair
Wayne Camara, The College Board

Panelists
Lauress Wise, HumRRO

Barbara Plake, University of Nebraska, Lincoln

Michael Kolen, University of Iowa

David Conley, University of Oregon

Tuesday, April 30
12:15 p.m.–2:00 p.m., Grand Ballroom C, 3rd Floor
Individual Session, L2

Scoring

Moderator
Adam Wyse, Michigan Department of Education

Presenters
EunYoung Lim, Korea Institute for Curriculum and Evaluation, Tao Jiang, American Institutes for Research, Bokhee Yoon, American Institutes for Research
Estimating Sub-Scores Using Bayes Expected Posterior Estimation (EAP) With Individual Student's Theta for Computerized Adaptive Testing

Su Zhang, Ontario Educational Quality and Accountability Office, Xiao Pang, Ontario Educational Quality and Accountability Office, Yunmei Xu, Ontario Educational Quality and Accountability Office, Nizam Radwan, Ontario Educational Quality and Accountability Office, Ebby Madera, Ontario Educational Quality and Accountability Office
Multidimensional Item Response Theory (MIRT) for Subscale Scoring

Peter Baldwin, National Board of Medical Examiners
Weighting Components of a Composite Score Using Naïve Expert Judgments About Subtest Importance

Marc Gessaroli, National Board of Medical Examiners
Defining and Comparing Different Augmented Subscores

Discussant
Jimmy de la Torre, Rutgers, The State University of New Jersey

Tuesday, April 30
12:15 p.m.–2:00 p.m., Laurel Hill, 4th Floor
Coordinated Session, L3

The Conceptual Foundations of Measurement: Cross-Disciplinary Perspectives

Organizer
Joshua McGrane, The University of Western Australia

Moderator
Joshua McGrane, The University of Western Australia

Presenters
Stephen Humphry, The University of Western Australia
The Bridge Between Metrology and Psychometrics

Joshua McGrane, The University of Western Australia
Stevens' Forgotten Crossroads: The Divergent Measurement Traditions in the Physical and Psychological Sciences From the Mid-20th Century

Andrew Kyngdon, MetaMetrics Inc.
Utility Theory and Psychometrics – The Estranged Cousins of Quantitative Behavioural Science

William Fisher, University of California, Berkeley, A. Jackson Stenner, MetaMetrics Inc.
A Technology Roadmap for Bridging Past and Future in Education: Coordinating and Aligning Investments

Discussant
Andrew Maul, University of Colorado, Boulder

Tuesday, April 30
12:15 p.m.–2:00 p.m., Telegraph Hill, 4th Floor
Coordinated Session, L4

Exploring Issues and Opportunities in Assessing English Learners' Language Proficiency and Academic Content Knowledge using Next-Generation Assessments

Organizer
Jamal Abedi, University of California, Davis

Moderator
Robert Linquanti, WestEd

Presenters
Alison Bailey, University of California, Los Angeles, Mikyung Kim Wolf, Educational Testing Service
Whither the Academic Language Construct? Implications of the Common Core State Standards for Next-Generation English Language Proficiency Assessments

H. Gary Cook, Wisconsin Center for Education Research, University of Wisconsin, Madison
Utilizing The CCSSO ELPD Framework Assessment Alignment Protocol

Joseph Willhoft, Smarter Balanced Assessment Consortium, Magda Chia, Smarter Balanced Assessment Consortium
Creating an Accessibility Framework for the Smarter Balanced Assessment Consortium Assessment System to Address Language and Accessibility Issues

Jamal Abedi, University of California, Davis, Robert Linquanti, WestEd
Toward a Common Definition of English Learner: Issues and Options

Discussants
Peggy Carr, National Center for Education Statistics
Deborah Sigman, California Department of Education

Tuesday, April 30
12:15 p.m.–2:00 p.m., Twin Peaks, 4th Floor
Individual Session, L5

Item Response Theory (II)

Moderator
Ou Zhang, Pearson

Presenters
John Donoghue, Educational Testing Service, Catherine McClellan, Clowder Consulting, LLC
Evaluation of IRT Modification Index to Test the Fit of a Common IRF

Katrina Crotts, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst
Investigating the Impact of Model Misfit on Parameter Invariance

André Rupp, University of Maryland
A Critical Review of the Methodology for Person Fit Research in Item Response Theory: Lessons About Generalizability of Inferences from the Design of Simulation Studies

Ying Cheng, University of Notre Dame, Cheng Liu, University of Notre Dame
Detecting Non-Model-Fitting Examinees With Iterative Procedures Using Person-Fit Indices

Seock-Ho Kim, University of Georgia
Parameter Estimation of the Continuation Ratio Model

Discussant
Jonathan Templin, University of Georgia

Tuesday, April 30
12:15 p.m.–2:00 p.m., Union Square, 3rd Floor
Coordinated Session, L6

Psychometric and Learning Effects of Feedback in Assessment

Organizer
Yigal Attali, Educational Testing Service

Moderator
Yigal Attali, Educational Testing Service

Presenters
Meirav Arieli, Educational Testing Service, Yigal Attali, Educational Testing Service
Psychometric Effects of a Game-like Feedback Feature During Assessment

Yigal Attali, Educational Testing Service, Cara Laitusis, Educational Testing Service, Elizabeth Stone, Educational Testing Service
Differences in Reaction to Immediate Feedback and Opportunity to Revise Answers for Multiple-Choice and Open-Ended Questions

John Poggio, University of Kansas, Susan Gillmor, University of Kansas, Andrew Poggio, Edmentum
A Formative Assessment Tutorial Model in Mathematics

Fabienne van der Kleij, Cito, Netherlands, Remco Feskens, Cito, Netherlands, Theo Eggen, Cito, Netherlands
Effects of Feedback in a Computer-Based Learning Environment on Students' Learning Outcomes: A Meta-Analysis

Bridgid Finn, Educational Testing Service
Scaffolding Feedback to Maximize Long-Term Error Correction

Discussant
Kenneth Koedinger, Carnegie Mellon University

Tuesday, April 30
2:30 p.m.–4:15 p.m., Grand Ballroom A, 3rd Floor
Invited Session, M1

A Look at Our Psychometric History: Contributions of Thurstone, Lindquist, Anastasi, Bock, Messick, and Holland

Organizer
Sandip Sinharay, CTB/McGraw-Hill

Chair
Linda Cook, Educational Testing Service

Presenters
Li Cai, University of California, Los Angeles
Contributions of Louis L. Thurstone

Robert Brennan, University of Iowa
Contributions of Everett F. Lindquist

Kurt Geisinger, University of Nebraska, Lincoln
Contributions of Anne Anastasi

David Thissen, University of North Carolina
Contributions of R. Darrell Bock

Michael Kane, Educational Testing Service
Contributions of Samuel J. Messick

Sandip Sinharay, CTB/McGraw-Hill
Contributions of Paul W. Holland

Tuesday, April 30
2:30 p.m.–4:15 p.m., Grand Ballroom B, 3rd Floor
Invited Session, M2

The Future of Psychometrics: Bridging the Gap Between Traditional and Burgeoning Measurement Theory

Organizer
Ian Hembry, University of Texas at Austin

Presenters
Kristen Huff, Regents Research Fund New York
Evidence Centered Design

Robert Mislevy, Educational Testing Service
Complex Scoring Tasks With Bayesian Networks

Walter Denny Way, Pearson
Innovative Assessment and Technology

Mark Reckase, Michigan State University
Bridging Traditional Measurement Theory With Emerging Psychometrics

Susan Phillips
Policy and Legality Issues as Psychometrics Advances

Tuesday, April 30
2:30 p.m.–4:15 p.m., Grand Ballroom C, 3rd Floor
Individual Session, M3

Validity—Psychometric and Statistical Methods

Moderator
Jonathan Steinberg, Educational Testing Service

Presenters
Nikolaus Bezruczko
Measuring Preschool Gain: Comparison of Raw Scores, Residualized Gains, and Rasch Logits

Guangming Ling, Educational Testing Service
To Report All Scores or Not? A Review and Evaluation of the Possible Impact on Criterion-Related Validity

Christopher Foster, University of Massachusetts, Amherst, Robert Cook, University of Massachusetts, Amherst
Improving Test Score Validity through the Detection of Shift Errors

Joshua Tudor, University of Iowa, Stephen Dunbar, University of Iowa
An Empirical Investigation of Sampling Designs and Weighting Methods in Developing Normative Information on Student Achievement

Discussant
Joanna Gorin, Educational Testing Service

Tuesday, April 30
2:30 p.m.–4:15 p.m., Laurel Hill, 4th Floor
Individual Session, M4

Item Response Theory (III)

Moderator
Ronli Diakow, University of California, Berkeley

Presenters
Tia Sukin, Pacific Metrics Corporation, Alan Nicewander, Pacific Metrics Corporation
More for your Buck: Enhancing Field-Test Data Efficiency With the Use of Item-Specific Priors

Jon-Paul Paolino, Columbia University
Penalized Joint Maximum Likelihood Estimation Applied to Two Parameter Logistic Item Response Models

Chanho Park, Korea Institute for Curriculum and Evaluation, Taehoon Kang, Sungshin Women's University, Sohee Kim, Sungshin Women's University
Effects of Ignoring Within-Group Homogeneity in Applications of IRT

Shudong Wang, Northwest Evaluation Association, Hong Jiao, University of Maryland, College Park
A Comparison of Different Reduction Methods for Bias of Maximum Likelihood Estimator of Student Ability Based on Graded Response and Generalized Partial Credit Models

Nazia Rahman, Fordham University, Peter Pashley, Law School Admission Council, Charles Lewis, Educational Testing Service
Uncovering Samejima Items by Conditioning on Uncontaminated Ability Estimates

Discussant
William Skorupski, University of Kansas

Tuesday, April 30
2:30 p.m.–4:15 p.m., Telegraph Hill, 4th Floor
Coordinated Session, M5

The Tests May Go, but the Kids Will Stay: What Do Nextgen Assessment Developers Need to Learn From Research on AA-MAS?

Organizer
Sue Bechard, Inclusive Educational Assessment

Moderator
Sue Bechard, Inclusive Educational Assessment

Presenters
Sheryl Lazarus, National Center on Educational Outcomes
The Characteristics of Low Performing Students: Implications for Designing Accessible Assessments

Sue Bechard, Inclusive Educational Assessment
Lessons Learned About Technology-Enhanced Assessments for AA-MAS

Shelley Loving-Ryder, Virginia Department of Education
Modified Achievement Standards Test Development: Lessons Learned

Vincent Dean, Michigan Department of Education
Alternate Assessment Based on Modified Achievement Standards (AA-MAS) Development: One State's Experience and Implications for Computer Adaptive Testing (CAT)

Discussants
Magda Chia, Smarter Balanced Assessment Consortium
Tamara Reavis, PARCC

Tuesday, April 30
2:30 p.m.–4:15 p.m., Twin Peaks, 4th Floor
Individual Session, M6

Reliability

Moderator
Anne Traynor, Michigan State University

Presenters
Sooyeon Kim, Educational Testing Service, Samuel Livingston, Educational Testing Service
Multistage Test Reliability Estimated by Classical Test Theory

Joseph Fitzpatrick, University of Kansas, William Skorupski, University of Kansas
The Sampling Distribution of Coefficient Alpha for Small Samples of Items and Examinees

Wei Wang, University of Iowa, Robert Brennan, University of Iowa
An Investigation of Mixed-Format Tests Using Multivariate Generalizability Theory

Stella Kim, Yonsei University, Guemin Lee, Yonsei University, Euijin Lim, University of Iowa, Dong-In Kim, CTB/McGraw-Hill
The Effects of Different Parallelism Assumptions on the Estimates of Classification Consistency Using IRT and Non-IRT Approaches

Xiaohong Gao, ACT, Inc., Chunyan Liu, ACT, Inc., Yuki Nozawa, ACT, Inc., Rui Guo, University of Illinois at Urbana-Champaign
Sampling Variability and Measurement Precision Under Multistage Testing: A Generalizability Theory Perspective

Discussant
Michael Walker, Educational Testing Service

Tuesday, April 30
2:30 p.m.–4:15 p.m., Union Square, 3rd Floor
Coordinated Session, M7

Theories of Action for Performance Assessment: Impact Research and Prospects for Next Generation Assessment Programs

Organizer
Steve Ferrara, Pearson

Moderator
Steve Ferrara, Pearson

Presenters
Suzanne Lane, University of Pittsburgh
Impacts on Classroom Instruction and Achievement in the 1990s and Implications for the Next Generation of Assessments

Enis Dogan, Achieve, Bonnie Hain, Achieve, Carrie Piper, Achieve
Theory of Action for the PARCC Performance Based Assessment and its Role in the Overall Assessment Design

Rachel Quenemoen, National Center on Educational Outcomes, Claudia Flowers, University of North Carolina at Charlotte, Ellen Forte, edCount LLC
Theory of Action for the National Center and State Collaborative Alternate Assessments and Its Role in the Overall Assessment Design

Discussants
Joan Herman, Center for Research on Evaluation, Standards, and Student Testing/ University of California, Los Angeles
Michael Feuer, George Washington University

Tuesday, April 30
4:30 p.m.–6:15 p.m., Grand Ballroom A, 3rd Floor
Coordinated Session, N1

Psychometric, Design, and Implementation Issues of Item Generation, Item Families or Templates

Organizers
Ying Cheng, University of Notre Dame
John Behrens, Pearson

Moderator
Ying Cheng, University of Notre Dame

Presenters
Can Shao, University of Notre Dame, Ying Cheng, University of Notre Dame
Review of Literature on Item Cloning, Item Families and Template

Quinn Lathrop, University of Notre Dame, Ying Cheng, University of Notre Dame
Modeling Tests Using Templates and Effect of Ignoring Template Structure on Educational Outcomes

David Shin, Pearson, Yuehmei Chien, Pearson
Dealing with Variability Within Item Clones in Computerized Adaptive Testing

John Behrens, Pearson, Daniel Robinson, Colorado State University, Dan Murphy, Pearson
Templates as Socio-Cognitive Exemplars: Transfer and Generalization as Foundational Design Goals

Discussants
James Pellegrino, University of Illinois at Chicago
Russell Almond, Florida State University

Tuesday, April 30
4:30 p.m.–6:15 p.m., Grand Ball Room B, 3rd Floor
Coordinated Session, N2

Promises and Challenges of Computerized Adaptive Testing in K-12 Assessments

Organizer
Liru Zhang, Delaware State Department of Education

Moderator
Liru Zhang, Delaware State Department of Education

Presenters
Shudong Wang, Northwest Evaluation Association, Hong Jiao, University of Maryland, College Park, Yun Xiang, Northwest Evaluation Association
Comparison of Item Fit Statistics of Polytomous Items in Item Response Theory Models between Linear and Adaptive Tests

John Denbleyker, Minnesota Department of Education, George Henly, Minnesota Department of Education
Evaluating Different Ability Estimation Methods for Strand Scores in a K-12 Computerized Adaptive Test: Perspective of Test-Retest Reliability

Yi Du, Data Recognition, Shuqin Tao, Data Recognition, David Chayer, Data Recognition
Evaluating Item Drift Detection Methods in the Context of Computer Adaptive Testing

Liru Zhang, Delaware Department of Education, Allen Lau, Pearson, Shudong Wang, Northwest Evaluation Association
Influence of Item Pool Characteristics on Multiple Measures for Student Growth in a Computerized Adaptive Test

Discussant
Tim Davey, Educational Testing Service

Tuesday, April 30
4:30 p.m.–6:15 p.m., Grand Ballroom C, 3rd Floor
Coordinated Session, N3

Fundamental Issues of Natural Language Processing in Automated Text Classification

Organizer
Dmitry Belov, Law School Admission Council

Moderator
Bernard Veldkamp, University of Twente

Presenters
Qiwei He, University of Twente, Bernard Veldkamp, University of Twente, Cees Glas, University of Twente
Combining Textual Analysis and IRT Scale Estimates Using a Bayesian Approach

Alan Mead, Illinois Institute of Technology
Development of a Naive Bayesian Classifier for Item Domains

Bernard Veldkamp, University of Twente, Qiwei He, University of Twente, Muirne Paap, University of Twente
The Attributed Value of Semantic Features to Testlet Response Modeling

Kirk Becker, Pearson, Jeff McLeod, Pearson
Automated Item Bank Referencing: A Comparison of NLP Methods

Dmitry Belov, Law School Admission Council, Bernard Veldkamp, University of Twente, David Kary, Law School Admission Council
Robust Measure of Semantic Similarity Between Two Texts

Discussant
Peter Foltz, Pearson

Tuesday, April 30
4:30 p.m.–6:15 p.m., Laurel Hill, 4th Floor
Coordinated Session, N4

Psychometric and Substantive Challenges for Innovative Scenario-Based Task Design for Next Generation Assessments

Organizer
John Sabatini, Educational Testing Service

Moderator
Joanna Gorin, Educational Testing Service

Presenters
Joanna Gorin, Educational Testing Service
On the Use of Scenario-Based Tasks for NextGen Assessments

Tenaha O'Reilly, Educational Testing Service, John Sabatini, Educational Testing Service, Laura Halderman, Educational Testing Service
The Need and Feasibility of Scenario-Based Reading Assessments

John Sabatini, Educational Testing Service, Tenaha O'Reilly, Educational Testing Service, Laura Halderman, Educational Testing Service
Design and Measurement Opportunities and Challenges in Using Scenario-based Assessments

Laura Halderman, Educational Testing Service, Tenaha O'Reilly, Educational Testing Service, John Sabatini, Educational Testing Service
Scenario-Based Assessment: Problems and Solutions With Score Interpretation

Jonathan Steinberg, Educational Testing Service, Jonathan Weeks, Educational Testing Service
Content-Specific Dimensions in Reading Comprehension

Tuesday, April 30
4:30 p.m.–6:00 p.m., Telegraph Hill, 4th Floor
Individual Session, N5

Computer Based Testing (II)

Moderator
David Torres Irribarra, University of California, Berkeley

Presenters
Hong Qian, Michigan State University, Dorota Staniewska, Financial Industry Regulatory Authority
Using Response Times to Detect Item Pre-Knowledge in Computer-Based Testing

Shuhong Li, Educational Testing Service, Terran Brown, Educational Testing Service, Jiahe Qian, Educational Testing Service
Impact of Speededness on Item Scaling and IRT Equating for Computer-Based Assessments

Wei He, Northwest Evaluation Association, Qi Diao, CTB/McGraw-Hill, Carl Hauser, Northwest Evaluation Association
A Comparison of Four Item-Selection Methods for Severely Constrained CATs

Tsung-Han Ho, Educational Testing Service, Feifei Li, Educational Testing Service
To Bayes or Not to Bayes: Reducing the Impact of Response Anomalies in Adaptive Testing

Hao Ren, CTB/McGraw-Hill, Qi Diao, CTB/McGraw-Hill
Item Utilization in a Continuous Online Calibration Design

Discussant
Katie McClarty, Pearson

Tuesday, April 30
4:30 p.m.–6:15 p.m., Union Square, 3rd Floor
Individual Session, N6

Applied With Math Focus

Moderator
Nathan Dadey, University of Colorado, Boulder

Presenters
Okan Bulut, University of Minnesota, Adnan Kan, Gazi University
Assessing the Impact of Item Type on Dimensional Structure of Mathematics Assessments

Lee LaFond, University of Iowa, Robert Brennan, University of Iowa, Timothy Ansley, University of Iowa
A Multivariate Generalizability Study of the Iowa Algebra Readiness Assessment

Aminah Perkins, Emory University, Yuk Cheong, Emory University, George Engelhard Jr., Emory University
Using a Multilevel Model to Examine Person Fit on a High Stakes Mathematics Assessment

HeaWon Jun, Georgia Institute of Technology, Megan Lutz, Georgia Institute of Technology, Susan Embretson, Georgia Institute of Technology
Modeling the Psychometric Properties of High-Stakes Mathematics Assessment Exams from Cognitive Complexity

HeaWon Jun, Georgia Institute of Technology, Megan Lutz, Georgia Institute of Technology, Kristin Morrison, Georgia Institute of Technology, Susan Embretson, Georgia Institute of Technology
The Incremental Contribution of Cognitive Complexity to Specified Skills in Middle School Mathematics Test Items

Discussant
Finbarr Sloane, National Science Foundation

Tuesday, April 30
4:00 p.m.–7:00 p.m., Cathedral Hill, 4th Floor

NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.

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