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### WELCOME

#### Dear Attendee:

As local organizers of this year's International Meeting of the Psychometric Society (IMPS), we cordially welcome you to Beijing, China, and the campus of Beijing Normal University.

The city of Beijing, which was founded 3,000 years ago, is the capital of China. It is the political, economic, academic, and cultural center of the country. Tradition and modern civilization are well integrated in this beautiful city. BNU is conveniently located between the second and third ring of the city, and the campus is beautiful and ideal for hosting an international conference. We think you'll agree that it provides an excellent setting for our annual meeting.

The conference will occur at three facilities on campus: Jingshi Hotel, which will be the site of conference meetings and the location for conference registration; Yingdong Conference Hall, which will host our plenary sessions; and Jingshi Xuetang, which will be another venue for oral presentations.

The main conference will run from July 13 through July 16. It will begin at 8:20 a.m. on Monday July 13 in the Yingdong Conference Hall, with an opening ceremony and keynote address. It will end with a full day excursion on Thursday, July 16, to the Great Wall and Summer Palace. Conference sessions will take place through the day on Monday, Tuesday, and Wednesday.

Pre-conference Chinese short courses will be held on July 11 and English short courses on July 12. These will be full-day short courses covering wide topics of methodological and statistical issues in psychology, education, and related areas.

While you're in Beijing, we hope you will take time to enjoy the city's beauty, old and young, full of attractions. It is our sincere wish that you will enjoy the intermingling of traditional Beijing culture and the city's impressively modern image and make the best of your time here.

Enjoy the meeting and your stay in Beijing!

Tao XinHongyun LiuCo-Local Organizers for the 2015 IMPS meeting







中国基础教育质量监测协同创新中心 Collaborative Innovation Center of Assessment toward Basic Education Quality crAsEQ











### EUULE FRVIFW

### **SUNDAY, JULY 12**

	7:45 a.m12:00 noon 07:45-12:00	HL Conference Registration Open	7:00 a.m 5:00 p.m. 07:00-17:00	HL Conference Registration Open
	8:30 a.m9:30 a.m. 08:30-09:30	H6-F Refreshment Break	7:00 a.m5:00 p.m. 07:00-17:00	YM Speaker Practice Room Open
	9:00 a.m11:30 a.m. 09:00-11:30	H2 Editorial Council Meeting	7:50 a.m8:10 a.m. 07:50-08:10	SH* Session Chair/Moderator & Volunteers Training
	9:00 a.m5:10 p.m. 09:00-17:10	Pre-Conference Workshops H6 Li Cai and R. J. Wirth: flexMIRT:	8:20 a.m8:35 a.m. 08:20-08:35	SH* Welcome & Opening
		Flexible multilevel multidimensional item analysis and test scoring	8:35 a.m9:35 a.m. 08:35-09:35	SH* Keynote Speaker: Houcan Zhang Psychometrics in China: History and its development
		H1 Simon Wood: Generalized additive mixed models in R		Chair: Hua-Hua Chang
		H5 Elizabeth A. Stuart: Recent advances in the estimation of causal effects: Focus	9:40 a.m10:00 a.m. 09:40-10:00	<b>Group Photo</b> Main Building – Jingshi Square
		on propensity scores	10:00 a.m10:30 a.m. 10:00-10:30	YH-F, H6-F, XH-F Refreshment Breaks
	10:30 a.m10:50 a.m. 10:30-10:50	H6-F Refreshment Break		Parallel Sessions, Monday AM
	11:30 a.m1:00 p.m. 11:30-13:00	HD2 Editorial Council & BoT Luncheon	10:30 a.m12:00 noon 10:30-12:00	<b>YH</b> Invited Symp. <i>Detecting Cheating on Tests, Chair: Wim J. van der Linden</i>
	12:20 p.m1:45 p.m. 12:20-13:45	HD1 Workshop Attendee Luncheon		Arianto Wibowo: Incorporating suspicious answer changes in the detection of aberrant response patterns
	3:00 p.m3:30 p.m. 15:00-15:30	H6-F Refreshment Break		Vincent Kieftenbeld: Resiliency of automated scoring models to gaming
	1:00 p.m5:00 p.m. 13:00-17:00	H2 Board of Trustee (BoT) Meeting		Dmitry I. Belov: Detection of item preknowledge in a high-stakes test
				Wim J. van der Linden: Exact null and posterior distributions for the detection of cheating
				Xi Wang: Detecting candidate preknowledge of items using a predictive checking method
	<b>24-hour to 12-hour ti</b> 24-hour time (e.g., 06:0		10:30 a.m12:00 noon	Y3 Symp. New Developments in Network
0	1 2 3 4 5	6 7 8 9 10 11 12	10:30-12:00	Psychometrics, Chair: Denny Borsboom
<b>a.</b> 12		6 7 8 9 10 11 12		Denny Borsboom: The factor-analytic disease: Etiology, diagnosis, and treatment
	2-hour time (e.g., 6:00			Claudia van Borkulo: A new method for
	24-hour time (e.g., 16:00			construction networks from binary data
10				Riet van Bork: Latent variable and network

12 13 14 15 16 17 18 19 20 21 22 23 p.m. 12 1 2 3 4 5 6 8 9 10 11 7

### **MONDAY, JULY 13**

#### Sacha Epskamp: Residual interaction modeling: Unifying SEM and network modeling SH\* is the Student Activity Center. Allow at least 15 minutes to walk there from the Jingshi Hotel, and follow the directions of guides wearing orange baseball caps.

Jingshi Hotel: (H)

structures.

#### Yingdong Conference Hall: (Y)

page 2

> (YL) Main (YH) Lecture Lobby Hall (2nd Floor) Entrance

(YH-F) 2nd Floor Room 2 Foyer Area

(Y2) Conference (2nd Floor)

(YM) Mini **Meeting Room** (2nd Floor)

(Y3) Conference Room 3 (3rd Floor)

(HL) Hotel Lobby (1st Floor)

(HD1) Dining Room 1 (1st Floor)

(HD2) Dining Room 2 (2nd Floor)

model implications for (partial) correlation

(H6) Room 6 (3rd Floor)

<sup>12-</sup>hour time (e.g., 4:00 p.m.)

MONDAY, JUL	Y 13	MONDAY, JUL	Y 13
10:30 a.m12:00 noon 10:30-12:00	H6 Equating in IRT, Chair: Young-Sun Lee	10:30 a.m12:00 noon 10:30-12:00	<b>XH</b> Cognitive Diagnosis Models I, Chair: Gongjun Xu
	Björn Andersson: An observed-score equating framework for latent variable models with polytomous data		Bor-Chen Kuo: A cognitive diagnosis model using multiple category scoring for constructed response items
	Stella Kim: Composition of common items for equating with mixed-format tests		Jung Yeon Park: Bayesian model checking methods for cognitive diagnosis models
	Jinghua Liu: Selection of equating samples when the test taking population changes		Kevin Carl Santos: Detecting aberrant examinees in cognitive diagnosis models
	Huijuan Meng: An empirical investigation of item response time stability among		Yan Sun: A general nonparametric class- ification method for cognitive diagnosis
	equating items		Chih-Wei Yang: An extended multiple- strategy DINA model for strategy estimation
	Jonathan Weeks: Developing a multi- dimensional vertical scale of reading for	10.20 12.00	
	understanding	10:30 a.m12:00 noon 10:30-12:00	<b>X3</b> Model Fit/Selection in IRT, Chair: Andries van der Ark
10:30 a.m12:00 noon 10:30-12:00	H1 Large-Scale Assessment, Chair: Claus Carstensen		Johan Braeken: Towards effect size measures for local item dependence
	Yue (Helena) Jia: Statistical projection through multidimensional latent regression: Linking between large scale educational survey assessments		Yunxiao Chen: Latent variable model selection for binary response data with application in educational and psychiatric data
	Xiaying Zheng: Using sample weights in item response data analysis under complex sample designs		Seungwon Chung: Limited information goodness-of-fit testing of IRT models in the presence of planned missing data
	Rongchun Zhu: Impact of item cluster position on parameter estimation using an international assessment		Zhen Li: Summed score likelihood based statistics for detecting latent variable distribution fit in full-information item bifactor models
10:30 a.m12:00 noon 10:30-12:00	H5 Longitudinal Models, Chair: Marco Alfó		Dandan Liao: Model fit evaluation in multi- level-multidimensional item response models: Sensitivity to model
	Steven M. Boker: Fitting multi-timescale differential equation models of adaptive		misspecification
	equilibrium regulation	10:30 a.m12:00 noon 10:30-12:00	<b>X7</b> Statistical Inference, Chair: Jingchen Liu
	Yueqin Hu: Dynamic process for ordinal data: Latent differential equation modeling with threshold		Xin Gu: Approximate Bayes factor for informative hypotheses
	Noémi Schuurman: Measurement error, reliability and stability in multilevel autoregressive modeling		Clemens Draxler: Some thoughts concerning the influence of nuisance parameters on conditional inference
	Satoshi Usami: Inferring longitudinal relationships between variables: Model selection between the latent change score and autoregressive cross-lagged factor models		Pieter M. Kroonenberg: The use of deviance plots for non-nested model selection in loglinear models, structural equations, and three-mode analysis
	Chuyi Yu: Piecewise latent growth		Yang Liu: Generalized fiducial inference for graded response models
	modeling with random change-point	12:00 noon-1:30 p.m. 12:00-13:30	Attendee Luncheon* Northwestern Restaurant *Advanced ticketed event

### Jingshi Hotel: (H)

(H6-F) 3rd Floor(H5) Room 5Foyer Area(3rd Floor)

(H2) Room 2 (3rd Floor)

(H1) Room 1 (3rd Floor)

Jingshi Xuetang: (X)

Foyer Area

(XH) Jingshi Hall (XH-F) 1st (1st Floor) Floor

(X3) The 3rd Room (B1 Floor)

(X-B1) Lobby (B1 Floor)

(X7) The 7th Room (3rd Floor)

# 2015 SCHEDULE OVERVIEW

### MONDAY, JULY 13

	Parallel Sessions, Monday PM	1:30 p.m3:00 p.m. 13:30-15:00	<b>YH</b> Invited Symp. <i>Publication Trade</i> Secrets: Straight from the Publishers'
1:30 p.m3:00 p.m. 13:30-15:00	H6 Response Time Models, Chair: Gunter Maris	13.30 13.00	Mouths, Chair: Jimmy de la Torre
	Maria Bolsinova: Modeling conditional dependence between response time and		Kurt Geisinger: Applied Measurement in Education
	accuracy Hyeon-Ah Kang: Online calibration for a		Hua-Hua Chang: Applied Psychological Measurement
	joint model of responses and response times in CAT		Matthias von Davier: British Journal of Mathematical and Statistical Psychology
	Abhisek Saha: Bayesian analysis of joint modeling of response times with dynamic		Willem Heiser: Journal of Classification
	latent ability Stijn Verdonck: D*M estimation: Convolving		Li Cai: Journal of Educational and Behavioral Statistics
	choice RT data and decision model distri- butions to factor out non-decision time		Jimmy de la Torre: Journal of Educational Measurement
	Ingmar Visser: The general linear ballistic accumulator model		Paul De Boeck: Measurement: Inter- disciplinary Research and Perspectives
1:30 p.m3:00 p.m. 13:30-15:00	H1 Ordinal & Mixed Responses in IRT, Chair: Yi Zheng		Irini Moustaki: Psychometrika
13.30-13.00	Jiao Can: Comparison of exposure con-	1:30 p.m3:00 p.m. 13:30-15:00	Y3 Validity, Generalizability, & Scoring, Chair: Denny Borsboom
	trols, item pool characteristics, and stop- ping rules for CAT using the generalized partial credit model		Keith Markus: Degrees of test validity: Some new simulation results
	Ebru Demircioglu: An investigative study of LR and DFIT methods using GGUM model: An analysis of differential item		Joseph H. Grochowalski: Component universe score profile analysis: A new method of profile analysis
	function assessment of polytomous items		Yon Soo Suh: Optimal measurement procedures in generalizability theory
	Claus H. Carstensen: Incorporating dif- ferent response formats of competence tests in an IRT model		Kohei Uno: Clustered factor score identification in matrix-factorization factor analysis
	Weiwei Cui: Evaluating dimensionality in mixed-format tests using a multidimen- sional IRT approach		Jinming Zhang: Random or mixed-effect models should be used in generalizability theory
	Yujin Kang: Comparison of unidimen- sional IRT calibration and equating methods for mixed-format tests	3:00 p.m3:30 p.m. 15:00-15:30	YH-F, H6-F Refreshment Breaks
1:30 p.m3:00 p.m. 13:30-15:00	H5 Classification & Latent Distributions, Chair: Tim Moses	3:30 p.m4:15 p.m. 15:30-16:15	Invited Speakers: Francis Tuerlinckx, Xiangdong Yang, Elizabeth Stuart
	Elena A. Erosheva: Fast approximate mixed membership inference with rank data		<b>YH</b> Francis Tuerlinckx: Bridging psychology and psychometrics: Three case studies Chair: Han van der Maas
	Robert Hillen: A critical review of taxo- metrics: Why taxometrics is unsuited for psychological data		H6 Xiangdong Yang: Toward an explanatory scale of cognitively designed algebra story problems Chair: Klaas Sijtsma
	Satoshi Watanabe: Taxon separation using the bootstrap		Y3 Elizabeth A. Stuart: Propensity score
	Young Koung Kim: A method of esti- mating test score distributions by item sampling		methods in the context of covariate measurement error Chair: Anders Skrondal
	Hannah Oosterhuis: Standard errors for norm statistics	4:30 p.m6:30 p.m. 16:30-18:30	XH Welcome Reception & Poster Session

**MONDAY, JULY 13** 

### Yingdong Conference Hall: (Y)

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(YH) Lecture(YH-F) 2nd(HallFloorH(2nd Floor)Foyer Area(

(Y2) Conference('Room 2M(2nd Floor)(2)

(YM) Mini Meeting Room (2nd Floor)

(Y3) Conference Room 3 (3rd Floor)

### Jingshi Hotel: (H)

(HL) Hotel (HD1) Dinir Lobby Room 1 (1st Floor) (1st Floor)

(HD1) Dining(HD2) DiningRoom 1Room 2(1st Floor)(2nd Floor)

(H6) Room 6 (3rd Floor)

**TUESDAY, JULY 14** 

### TUESDAY, JULY 14

7:00 a.m5:00 p.m. 07:00-17:00	HL Conference Registration Open	8:00 a.m9:30 a.m. 08:00-09:30	H1 Model Selection & Model Averaging, Chair: Clemens Draxler
7:00 a.m5:00 p.m. 07:00-17:00	YM Speaker Practice Room Open		Wicher Bergsma: Regression modeling with I-priors
	Parallel Sessions, Tuesday AM		David Kaplan: Bayesian model averaging over directed acyclic graphs with implica-
8:00 a.m9:30 a.m. 08:00-09:30	YH Symp. Psychometric Issues in Large Scale Assessment in the International		tions for prediction in structural equation modeling
	Context, Chairs: Tao Xin, Changhua Rich		Meereem Kim: Model selection in random item mixture IRT model
	Tao Xin: Setting standards toward the quality of Chinese compulsory education		Huiping Wu: Bayesian analysis of dichoto- mous latent trait models
	Dongmei Li: Different growth measures on different vertical scales		Zijun Ke: Testing autocorrelations: Com- paring the standard asymptotic method
	Xin Li: A Chinese longitudinal study: Growth modeling with value-added	0.00	and resampling techniques
	interpretations Danhui Zhang: An investigation of the	8:00 a.m9:30 a.m. 08:00-09:30	H5 Reliability, Chair: Won-Chan Lee
	impact of extracurricular learning on student science achievement in China		Klaas Sijtsma: Reliable and precise measurement: Caveats and a research agenda
	Xiaohong Gao: Generalizability of assess- ing school accountability under matrix sampling		Pieter Ruben Oosterwijk: Factors causing reliability underestimation of coefficient alpha
8:00 a.m9:30 a.m. 08:00-09:30	<b>Y3</b> Mixture/Latent Class Models, Chair: Yui Fai Yung		Eva A. O. Zijlmans: Estimation methods for single-item reliability
	Hye-Jeong Choi: An application of a random mixture nominal item response model in a latent transition analysis for invotigating instruction effects.		Terry Ackerman: Evaluation of five reliability estimates under multidimen- sional test scenarios
	investigating instruction effects Depeng Jiang: Program evaluation with		Seohyun Kim: A structural equation modeling approach to estimation of
	multilevel and multivariate longitudinal outcomes Wen Luo: Impact of misspecified turning points of trait estimation	n heterogeneous growth	reliability for a test with items having different numbers of ordered categories
	Yoon Soo Park: Mixture higher-order diag- nostic classification model with covariates	8:00 a.m9:30 a.m. 08:00-09:30	<b>XH</b> Computerized Adaptive Testing, Chair: Kyung (Chris) Han
	Jesper Tijmstra: Person-mixture item- response models for Likert scale data		Chia-Wen Chen: A quick item selection method in computerized adaptive test-
8:00 a.m9:30 a.m.	H6 Invited Symp. Handling Missing Data		ing for ranking items
08:00-09:30	in Psychometrics, Chair: Anders Skrondal Victoria Savalei: Treating item-level missing		Ya-Hui Su: Investigation of costraint- weighted item selection procedures in polytomous CAT
	data in SEMs when indicators are parcels		Xiaoou Li: Nearly optimal computerized
	Irini Moustaki: Modeling missing values in cross-national surveys: A latent vari- able approach		adaptive testing for mastery test Xiuzhen Mao: The application of restric- tive stochastic item selection methods
	Cees Glas: Missing data in IRT models		in multidimensional computerized adaptive testing
	Joost van Ginkel: A simulation study on the performance of multiple imputation using regression with optimal scaling		Shiyu Wang: Sequential design for com- puterized adaptive testing that allows
	Anders Skrondal: Simple tests of Missing At Random (MAR) in multilevel models		for response revision

### Jingshi Hotel: (H)

Foyer Area

(H6-F) 3rd Floor (H5) Room 5 (3rd Floor)

(H2) Room 2 (3rd Floor)

(H1) Room 1

(3rd Floor)

Jingshi Xuetang: (X)

(XH) Jingshi Hall (XH-F) 1st (1st Floor) Floor Foyer Area

(X3) The 3rd Room (B1 Floor)

(X-B1) Lobby (B1 Floor) (X7) The 7th Room (3rd Floor)

### **5** SCHEDULE OVERVIEW 21

### **TUESDAY, JULY 14**

TUESDAY, JUL	Y 14	TUESDAY, JUL	Y 14
8:00 a.m9:30 a.m. 08:00-09:30	X3 Choice/Comparative Response Data, Chair: Mark deRooij Duncan K. H. Fong: A Bayesian multi-	12:00 noon-1:30 p.m. 12:00-13:30	Attendee & Student Luncheon* Northwestern Restaurant *Advanced ticketed event
	nomial probit model for the analysis of choice data		Parallel Sessions, Tuesday PM1
	Yin Lin: Item parameters in forced- choice personality assessments: Does context in which items appear matter?	1:30 p.m3:00 p.m. 13:30-15:00	<b>YH</b> Invited Symp. <i>Psychometrics in East</i> <i>Asia,</i> <i>Chair: Wen-Chung Wang</i>
	Tour Liu: An investigation of enhance- ment of ability estimation using a nested		Tao Xin: Psychometric developments in the Chinese mainland
	logit model for multiple-choice items		Kohei Adachi: Psychometrics in Japan
	Safir Yousfi: Optimal assembly of forced- choice questionnaires		Soonmook Lee: Past and present of psy- chometric work in Korea
	Gökhan Kumlu: Comparing pairwise comparison and rank-order judgments scaling of teacher competences		Bor-Chen Kuo: The development of psychometrics and psychological testing in Taiwan
8:00 a.m9:30 a.m. 08:00-09:30	<b>X7</b> Standard Setting & Automated Scoring, Chair: Mo Zhang	1:30 p.m3:00 p.m. 13:30-15:00	<mark>Y3</mark> Model Fit/Selection in SEM, Chair: Hao Wu
	David Thissen: Standard setting: From ed- ucational assessment to health outcomes measurement (and back?)		Ge Jiang: Small sample statistics for SEM: New corrections to the likelihood ratio statistic for nonnormal data
	Myoung Hwa Kim: Quality control of standard setting using many-faceted and diagnostic models		Keke Lai: The problem with having two watches: Assessment of fit when RMSEA and CFI disagree
	Xin Luo: Adaptive body of work: A new standard setting procedure in complex exams		Jiajuan Liang: Mardia's skewness and kurtosis tests for normality in covariance structure models under high dimension with a small sample size
	Frank Rijmen: Targeting automated scor- ing responses for human review Jing Chen: Improving the effectiveness of		Alberto Maydeu-Olivares: Assessing the size of model misfit in covariance struc- ture models
	the pre-screening filtering system of an automated essay scoring engine		Jelte M. Wicherts: Errors and biases in the reporting of the fit of structural equation
9:40 a.m10:10 a.m. 09:40-10:10	YH Dissertation Prize Speaker: Michelle LaMar		models
	Cognitive models for understanding student thinking in complex tasks Chair: David Thissen	1:30 p.m3:00 p.m. 13:30-15:00	H6 Symp. Modeling Responses and Re- sponse Times to Psychological Tests, Chair: Dylan Molenaar
10:10 a.m10:30 a.m. 10:10-10:30	YH-F Refreshment Break		Abe Hofman: Fast versus slow multiplica- tion strategies
10:30 a.m11:30 a.m. 10:30-11:30	YH Keynote Speaker: Yutaka Kano Developments in multivariate missing data		Paul De Boeck: What dependencies between response times and response accuracies can tell
11:30 a.m12:00 noon	analysis Chair: Alberto Maydeu-Olivares <mark>YH Business Meeting, Everyone Welcome</mark>		Dylan Molenaar: Response mixture modeling of responses and response times
11:30-12:00	Announcement of IMPS 2017, Financial Report, Elections, Other Announcements Chair: Sophia Rabe-Hesketh		Gunter Maris: Response time models: All for one and one for all
			Han van der Maas: Response times in computer adaptive practice and moni- toring systems

### Yingdong Conference Hall: (Y)

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(YL) Main Lobby Entrance

(YH) Lecture (YH-F) 2nd Floor

(Y2) Conference

**Meeting Room** 

(Y3) Conference (3rd Floor)

Lobby (1st Floor)

Room 2 (2nd Floor) (H6) Room 6 (3rd Floor)

Hall (2nd Floor)

Foyer Area

### Room 2 (2nd Floor)

(YM) Mini (2nd Floor) Room 3

(HL) Hotel Room 1 (1st Floor)

(HD1) Dining (HD2) Dining

Jingshi Hotel: (H)

### TUESDAY, JULY 14

UESDAY, JUL	Y 14	TUESDAY, JUL	Y 14
1:30 p.m3:00 p.m. 13:30-15:00	H1 Clustering & Classification, Chair: Elena A. Erosheva	1:30 p.m3:00 p.m. 13:30-15:00	X3 Nonparametric & Nonstandard IRT, Chair: Matthew S. Johnson
	Jacqueline J. Meulman: COSA 2.0: Clus- tering objects on subsets of attributes		L. Andries van der Ark: Multilevel Mok- ken scale analysis
	revisited Maria Brigida Ferraro: A general method for clustering in a reduced subspace		Samantha Bouwmeester: The sources of variance overlap between personality and behavioral measures
	Melanie Wall: In search of an optimally valid criteria set for diagnosing alcohol		Yuan Sun: Derivation of logistic model from item response patterns
	use disorder Mo Zhang: Classification of writing styles using keystroke logs		Seock-Ho Kim: Continuation ratio model in item response theory and selection of models for polytomous items
	Mark de Rooij: The $\delta$ -machine		Yue Liu: Is the four-parameter model
1:30 p.m3:00 p.m. 13:30-15:00	H5 IRT for Paired Samples & Longitudinal Data,		suited for achievement tests as well as psychological tests?
	Chair: Chun Wang	1:30 p.m3:00 p.m. 13:30-15:00	X7 Measurement in Practice, Chair: Xiaoting Huang
	Kuan-Yu Jin: Modeling global and local dependence in paired samples	13.30 13.00	David Stillwell: Tomorrowland: A
	Inga Schwabe: A heteroscedastic mul- tilevel item response theory model for twin data		computer adaptive measure of delay discounting
	Stéphanie van den Berg: Psychometrics in genetics		Shenghong Dong: An effectiveness comparison of IRT-based DIF detection using a scale purification procedure and a DIF-free-then-DIF strategy
	Jenn-Yun Tein: Alternative methods of latent growth modeling for examining intervention effects		Hye Kyung Lee: Multidimensional item response analysis of a number sense assessment with mathematics learning
	Guangjian Zhang: A comparison of dynamic factor analysis, principal component analysis, and independent component analysis for an EEG study		disabilities students Mingchu Neal Luo: Development of an American standard-based instrument for assessing principal leadership: Investigat-
1:30 p.m3:00 p.m. 13:30-15:00	<b>XH</b> Linking & Data Fusion, Chair: Jonathan Weeks		ing the psychometric properties of the Chinese principals' perspectives
	Jiyoung Jung: The comparison of linking methods and different anchor tect The comparison of multidimensional equating methods condition between dimensions and different group ability in NEAT	in correlation design	Yue Zhao: Estimation accuracy of IRT calibration in patient-reported outcome measures with small sample sizes
	s <del>ional IRT model</del> Katerina Marcoulides: Data integra- tion methods and implementing IRT	3:00 p.m3:30 p.m. 15:00-15:30	YH-F, H6-F Refreshment Breaks
	models for test linking: When multiple versions of a measurement tool have	3:30 p.m4:15 p.m. 15:30-16:15	Invited Speakers: Li Cai, Jee-Seon Kim
	been administered for longitudinal child assessment	13.30-10.15	YH Li Cai: The utility of multidimension-
	Eisuke Segawa: A comparison of cali- brated projection and conventional IRT		al item response models in educational assessment and evaluation studies Chair: Wim J. van der Linden
	based linking Tom F. Wilderjans: Data fusion of heterogeneous data sets: The Tucker3-PCA model as an illustrative example		H6 Jee-Seon Kim: Causal inference with observational multilevel data: Challenges & strategies Chair: Anders Skrondal
	Han Du: A Bayesian "fill in" method for correcting for publication bias in meta-analysis		

### Jingshi Hotel: (H)

Foyer Area

(H6-F) 3rd Floor (H5) Room 5 (3rd Floor)

(H2) Room 2 (3rd Floor)

(H1) Room 1

(3rd Floor)

### Jingshi Xuetang: (X)

(XH) Jingshi Hall (XH-F) 1st (1st Floor) Floor Foyer Area

(X3) The 3rd Room (B1 Floor)

(X-B1) Lobby (B1 Floor) (X7) The 7th Room (3rd Floor)

### **TUESDAY, JULY 14**

	Parallel Sessions, Tuesday PM2
4:25 p.m5:40 p.m. 16:25-17:40	<b>YH</b> Symp. Computerized Multistage Testing: Theory and Applications Chair: Duanli Yan
	Yi Zheng: Overview of test assembly methods in multistage testing
	Duanli Yan: Routing and scoring, estimations in multistage testing
	Oliver Y. Zhang: Application of multistage test- ing in large-scale certification examinations
	Kyung (Chris) Han: Software tools for multistage testing simulations
4:25 p.m5:40 p.m. 16:25-17:40	Y3 Stata IRT Software Demo Chuck Huber (Stata): Item response models using Stata 14
4:25 p.m5:40 p.m. 16:25-17:40	H6 Sponsors Session Chair: Terry Ackerman
	Huijuan Meng, Kyung (Chris) Han (GMAC): Quasi Linear-on-the-Fly Test (LOFT) when item parameters are not available
	Matthew Gaertner (Pearson): Research and innovation at Pearson
	Xiaxun Sun (ACER): Differential item func- tioning detection using Mantel-Haenszel procedure in ACER ConQuest
	Alex Tong (ATA): The validity of scenario based testing (SST) in large-scale cam- pus recruitment assessment
4:25 p.m5:40 p.m. 16:25-17:40	H5 Non-Standard Response Types, Chair: Fan Wallentin
	Anna Brown: Thurstonian scaling of compositional questionnaire data
	Merijn Mestdagh: The impact of bounded measurements on the relation between the mean and the standard deviation
	Karl Schweizer: A confirmatory factor model for the investigation of cognitive data showing a ceiling effect: An example
4:25 p.m5:40 p.m. 16:25-17:40	<b>XH</b> Cognitive Diagnosis Models II, Chair: Ping Chen
	Xiaofeng Yu: Item selection strategies based on attribute mastery probabilities in CD-CAT
	Chunlei Gao : Multi-stage testing with cognitive diagnosis
	Miao Gao: Comparing approaches in cognitive diagnostic computerized adaptive testing
	Önder Sünbül: Evaluating performance of differential item functioning detec- tion methods for DIF data in DINA model

#### **Yingdong Conference Hall: (Y)**

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(YL) Main Lobby Entrance

(YH-F) 2nd (YH) Lecture Hall Floor (2nd Floor) Foyer Area

(Y2) Conference (YM) Mini Room 2 (2nd Floor)

**Meeting Room** (2nd Floor)

(Y3) Conference Room 3 (3rd Floor)

### Jingshi Hotel: (H)

(HL) Hotel Lobby Room 1 (1st Floor) (1st Floor)

(HD1) Dining (HD2) Dining Room 2 (2nd Floor)

(H6) Room 6 (3rd Floor)

### **TUESDAY, JULY 14**

4:25 p.m.-5:40 p.m. 16:25-17:40

4:25 p.m.-5:40 p.m.

16:25-17:40

X3 Rater Effects in IRT, Chair: Jinming Zhang

Jodi M. Casabianca: Parameter recovery and estimation of the longitudinal hierarchical rater model

Wen-Chung Wang: The multifaceted IRT Model for examinee-selected items

Zhuoran Wang: Applications of computerized adaptive testing in evaluating rater effects

Chun Wang: Adaptive rater monitoring

**X7** Statistical Learning, Chair: Melanie Wall

Jiayuan Yu: Test assembly using a quantum particle swarm optimization approach

Ying Cheng: The use of support vector machine in cognitive diagnostic assessments

Denis Larocque: Random forests for non-homogeneous zero-inflated Poisson processes

Vassilis Vasdekis: A Dantzig selector composite likelihood approach for multivariate generalised linear mixed models

WEDNESDAY, JULY 15

### WEDNESDAY, JULY 15

7:00 a.m3:30 p.m. 07:00-15:30	HL Conference Registration Open		Yi Zheng: Exploring online calibration of polytomous items in computerized adaptive testing
7:00 a.m3:30 p.m. 07:00-15:30	YM Speaker Practice Room Open	8:00 a.m9:30 a.m. 08:00-09:30	H1 Component & Scaling Analysis, Chair: Joost van Ginkel
	Parallel Sessions, Wednesday AM	00.00 09.50	Shizuhiko Nishisato: Multidimensional
8:00 a.m9:30 a.m. 08:00-09:30	YH Invited Symp. Advances in Modeling and Analysis for Educational Testing, Chair: Jingchen Liu		joint graphical display: Back to the basics Hiroki Ikemoto: Sparse core Tucker2 for computationally identifying the optimal
	Gongjun Xu: Detecting aberrant behavior in standardized testing		model between parafac and Tucker2
	Matthias von Davier: The effect of anchoring vignette scoring on reliability and validity		Takashi Muramaki: Applications of principal cluster components analysis to scale development and the validation of clustering by a resampling method
	Hua-Hua Chang: From computerized adaptive testing to adaptive learning		Ji Hoon Ryoo: Component-based item response theory
	and beyond Matthew S. Johnson: A hypothesis testing procedure for O matrix entries		Hye Won Suk: Constrained principal component analysis for functional data
	procedure for Q-matrix entries Jingchen Liu: Regularized latent class analysis with application in cognitive	8:00 a.m9:30 a.m. 08:00-09:30	H5 Lasso/Penalization & Trees, Chair: Wicher Bergsma
8:00 a.m9:30 a.m. 08:00-09:30	diagnosis Y3 Symp. Recent Developments in Latent Variable Models for Complex		Marije Fagginger Auer: Using LASSO penalization for explanatory IRT: An application on instructional covariates for mathematical performance in a
	Data Structures, Chair: Irini Moustaki		large-scale assessment
	Paolo Giordani: Remedies for degeneracy in Candecomp/Parafac		Junhao Pan: An alternative to post-hoc model modification in confirmatory factor analysis: The Bayesian Lasso
	Marco Alfo': Parsimonious representa- tions of finite mixture models for multi- variate mixed responses		Po-Hsien Huang: A penalized likelihood method for structural equation model- ing with ordinal data
	Maria Francesca Marino: Dynamic, random-coefficient based, missing data models		Xinru Li: Meta-CART: Integrating classification and regression trees into meta-analysis
	Silvia Cagnone: A multivariate latent variable model for analysing longitudinal mixed data		Marjolein Fokkema: Detection of treat- ment-subgroup interactions in clustered datasets
	Silvia Bianconcini: The latent variable ALT model: A general framework for longitudinal data	8:00 a.m9:30 a.m. 08:00-09:30	XH Differential Item Functioning, Chair: Ya-Hui Su
8:00 a.m9:30 a.m. 08:00-09:30	H6 Item Generation/Item Banks, Chair: Xiangdong Yang		Can Gürer: Differential item functioning in Rasch models with recent methods: An application to educational data
	Dmitry I. Belov: Exploiting properties of a feasible set to improve item pool utilization		Jing Jiang: Anchor item selection meth- ods in DIF analysis
	Lihong Yang: Enhancing item pool utilization for designing multistage		Can Shao: A procedure to select more invariant items for the anchor in tests of differential item functioning
	computerized adaptive tests		Xiuyuan Zhang: Methods to enhance small-sample DIF estimation: Implica-
	Francis Smart: Crowdsourcing item generation		tions for minimum sample size require- ments and flagging rules
	Ping Chen: A comparative study of online item calibration methods in mul- tidimensional computerized adaptive testing		

### Jingshi Hotel: (H)

(H6-F) 3rd Floor (H5) Room 5 **Foyer Area** 

(H2) Room 2 (3rd Floor) (3rd Floor)

Jingshi Xuetang: (X)

Floor

(XH) Jingshi Hall (1st Floor)

(H1) Room 1

(3rd Floor)

(XH-F) 1st Room Foyer Area

(X3) The 3rd (B1 Floor)

(X-B1) (X7) The 7th Lobby Room (B1 Floor) (3rd Floor)

# 2015 SCHEDULE OVERVIEW

### WEDNESDAY, JULY 15

		TEDREODAT,	
	Burhanettin Özdemir: Testlet effect on IRT-based DIF methods: Bayesian testlet		Parallel Sessions, Wednesday PM
8:00 a.m9:30 a.m.	response theory approach X3 Scoring in IRT, Chair: Seock-Ho Kim	1:30 p.m3:00 p.m. 13:30-15:00	YH Roger E. Millsap Tribute Symposium: Perspectives on Measurement Invariance, Chairs: Paul De Boeck, Jelte Wicherts
08:00-09:30	Michael Chajewski: Helpful Bayesian in- ferences about examinee performances for new scale implementations		Oi-Man Kwok: Partial measurement in- variance then and now: Methodological aspects and practical implications
	Kyung (Chris) Han: Maximum likelihood score estimation solution for short tests		Suzanne Jak: Testing strong factorial invariance in multilevel data
	and computerized adaptive tests Tianli Li: A transition to the theta-based		Ting Wang: Score-based tests of mea- surement invariance
	scale for large scale assessments		Hao Wu: Identifying models in invariance testing for ordered categorical data
	Ruslan Jabrayilov: Empirical comparison of classical test theory (CTT) and item response theory (IRT) in change assess- ment using outcome questionnaire-45 in the Dutch sample		Jelte M. Wicherts: What we (could) learn from (failures of) measurement invari- ance
	Qing Xie: Using a test battery for examin- ee classification: An empirical study	1:30 p.m3:00 p.m. 13:30-15:00	Y3 Multilevel IRT, Chair: Cees Glas
8:00 a.m9:30 a.m. 08:00-09:30	X7 Power, Non-Normality & Missing Data, Chair: Victoria Savalei		Megan Kuhfeld: Multilevel item factor analysis models for group-level infer- ences
	Marjan Bakker: Flawed intuitions about power Ming Huo: A Monte Carlo evaluation		Chen Li: A multilevel cross-classified polytomous item response theory (IRT) model for complex person clustering structures
	of parametric and permutation-based methods for two-group multivariate means comparisons when parametric assumptions are violated		Chun Wang: Measuring multidimension- al growth: A higher-order IRT perspec- tive
	Johnson Ching-Hong Li: A probability-based effect size (AG) robust to multivariate		Ji Seung Yang: Multilevel item bifactor models with nonnormal latent densities
	non-normality and heterogeneity of covariance matrices in one-way MANOVA		Chanho Park: Extensions of a group- level diagnostic assessment model for practical considerations
	Fan Jia: Imputation methods for missing non-normal data in structural equation modeling	1:30 p.m3:00 p.m. 13:30-15:00	H6 Multidimensional IRT, Chair: Johan Braeken
	Chen-Wei Liu: A hierarchical IRT ap- proach to item nonresponse for Likert- type scales		Yin Wah Fiona Chan: Application of multidimensional item response theory to personality assessment
9:30 a.m10:00 a.m. 09:30-10:00	YH-F Refreshment Break		Derya Çakici Eser: The interaction effect of the correlation between dimensions
10:00 a.m11:00 a.m. 10:00-11:00	YH Keynote Speaker: Simon Wood Modeling with smooth functions Chair: Jaqueline J. Meulman		and item discrimination on parameter estimation when multidimensional data are scaled as unidimensional
11:00 a.m12:00 noon 11:00-12:00	YH Career Award Speaker: Lawrence Hubert An old tale of two computational		Aiden Loe: Resolving multicollinearity using a two-tier information item factor analysis model
	approaches to regression: Updated for the 21st century Chair: Willem Heiser		Yong Luo: A dual testlet response theory model that accounts for dual local item dependence
12:00 noon-1:30 p.m. 12:00-13:30	Attendee Luncheon* Northwestern Restaurant *Advanced ticketed event		Peida Zhan: The logistic testlet frame- work for within-item multidimensional testlet-effect

WEDNESDAY, JULY 15

### Yingdong Conference Hall: (Y)

page 10

(YL) Main (YH) Lecture Lobby Hall Entrance (2nd Floor)

(YH) Lecture(YH-F) 2nd('HallFloorR(2nd Floor)Foyer Area(2)

(Y2) Conference(YRoom 2N(2nd Floor)(2)

(YM) Mini Meeting Room (2nd Floor) (Y3) Conference Room 3 (3rd Floor)

### Jingshi Hotel: (H)

(HL) Hotel (HD1) Dinii Lobby Room 1 (1st Floor) (1st Floor)

(HD1) Dining(HD2) DiningRoom 1Room 2(1st Floor)(2nd Floor)

(H6) Room 6 (3rd Floor)

EDNESDAY,	JULY 15	WEDNESDAY,	JULY 15
1:30 p.m3:00 p.m. 13:30-15:00	H1 Estimation Methods, Chair: Silvia Cagnone	1:30 p.m3:00 p.m. 13:30-15:00	X3 Mediation & Causality, Chair: David Kaplan
	Lianne Ippel: Estimating multi-level models in data streams		Ying Yuan: Bayesian dynamic mediation analysis
	Zhenqiu (Laura) Lu: Evaluating t-distribu- tion and sandwich robust methods for lev- el-1 outliers in hierarchical linear models		Wai Chan: The analysis of mediated moderation using VS
	Xin Tong: Growth curve modeling for non-normal data: A two-stage robust approach versus a semiparametric		Baojuan Ye : Estimating the confidence interval of the traditional mediation effect size using the delta method
	Bayesian approach		Jiangang Xia: Using the multilevel comparative interrupted time series
	Miao Yang: Robust moderation analysis using a two-level regression model		method to evaluate the impacts of U.S. national No Child Left Behind policy on school-level decision-making
	Shaobo Jin: Some aspects of selecting polychoric instrumental variables for a confirmatory factor analysis model with ordinal data		Mo Ching Magdalena Mok: Interplay of achievements in mathematics and Chinese language: A six-year longitudir study
1:30 p.m3:00 p.m. 13:30-15:00	H5 Response Processes/Styles, Chair: Francis Tuerlinckx	1:30 p.m3:00 p.m. 13:30-15:00	X7 Computer-Based Assessment, Chair: Michelle LaMar
	Daniel Bolt: Using the asymmetry of item characteristic curves (ICCs) to learn about underlying item response		Usama Ali: Item analysis for non-traditio item types in scenario-based assessmen
	processes Kensuke Okada: Bayesian estimation in hybrid multidimensional item response		Chen-Huei Liao: A preliminary result of collaborative problem solving assessme in Taiwan
	model Sien Deng: An investigation of rating		Sangbeak Ye: Sequential learning detecti with response times
	scale heterogeneity in ecological mo- mentary assessment (EMA) data	3:00 p.m3:25 p.m. 15:00-15:25	YH-F Refreshment Break
	Lale Khorramdel-Ameri: Validation and optimization of a new IRT approach for measuring response styles using exter-	3:25 p.m4:10 p.m.	YH Early Career Award Speaker:
	nal variables	15:25-16:10	<b>Sy-Miin Chow</b> Fitting and evaluating dynamical
	Yiyun Shou: Implication of thresholds noninvariance in cross-cultural studies		systems models: Current techniques and unresolved challenges Chair: Shizuhiko Nishisato
1:30 p.m3:00 p.m. 13:30-15:00	<b>XH</b> Cognitive Diagnosis Models III, Chair: Matthias von Davier	4:10 p.m5:10 p.m. 16:10-17:10	YH Presidential Address: Sophia Rabe-Hesketh
	Hans-Friedrich Köhn: A procedure for assessing the completeness of the Q-matrices of cognitively diagnostic tests		Ignoring non-ignorable missingness Chair: Terry Ackerman
	Ren Liu: Validating attribute structures in the attribute hierarchy method for	5:10 p.m6:00 p.m. 17:10-18:00	YH Awards Ceremony & Closing: Chair: Terry Ackerman
	making diagnostic inferences	7:00 p.m9:30 p.m. 19:00-21:30	<b>Closing Reception &amp; Banquet Dinner</b> Jingshi Hotel, 1 <sup>st</sup> and 2 <sup>nd</sup> Floor Dining Ha
	Xiang Liu: Bayesian inferences of the Q-matrix with an unknown number of attributes	THURSDAY, J	III V 16
	Susu Zhang: Effects of low latent class base rate and high item CTT difficulties on CD-CAT classification accuracy and efficiency under the DINO model	7:00 a.m6:30 p.m. 07:00-18:30	IMPS 2015 Social Excursion Meet in the Jingshi Hotel Lobby to load shuttle buses between 7:00 a.m. and 7:55
	Yu Bao: Power analysis of item-level interactions in a general diagnostic classification model framework		a.m. (07:00-07:55). Buses will depart by 8:0 a.m. (08:00) sharp! (See Excursion for furth details and timeline.)

### Jingshi Hotel: (H)

(H6-F) 3rd Floor(H5) Room 5Foyer Area(3rd Floor)

(H2) Room 2 (3rd Floor)

(H1) Room 1 (3rd Floor)

### Jingshi Xuetang: (X)

(XH) Jingshi Hall (XH-F) 1st (1st Floor) Floor Foyer Area (X3) The 3rd Room (B1 Floor)

(X-B1) Lobby (B1 Floor)

(X7) The 7th Room (3rd Floor)



### **KEYNOTES**



#### Houcan Zhang Beijing Normal University, China PSYCHOMETRICS IN CHINA:

PSYCHOMETRICS IN CHINA: HISTORY AND ITS DEVELOPMENT 13 July 2015, 8:35 a.m.-9:35 a.m. (08:35-09:35)



#### Michelle LaMar Educational Testing Service, USA 2015 Psychometric Society Dissertation Prize COGNITIVE MODELS FOR UNDER-STANDING STUDENT THINKING IN COMPLEX TASKS 14 July 2015, 9:40 a.m.-10:10 a.m. (09:40-10:10)



Yutaka Kano Osaka University, Japan DEVELOPMENTS IN MULTIVARIATE MISSING DATA ANALYSIS 14 July 2015, 10:30 a.m.-11:30 a.m. (10:30-11:30)



Simon Wood University of Bath, UK MODELING WITH SMOOTH FUNCTIONS 15 July 2015, 10:00 a.m.-11:00 a.m. (10:00-11:00)

### **INVITED SPEAKERS**



### Francis Tuerlinckx

KU Leuven, Belgium BRIDGING PSYCHOLOGY AND PSYCHO-METRICS: THREE CASE STUDIES 13 July 2015, 3:30 p.m.-4:15 p.m. (15:30-16:15)



Xiangdong Yang East China Normal University, Shanghai, China TOWARD AN EXPLANATORY SCALE OF COGNITIVELY DESIGNED ALGEBRA STO-RY PROBLEMS 13 July 2015, 3:30 p.m.-4:15 p.m. (15:30-16:15)



Elizabeth A. Stuart Johns Hopkins University, USA PROPENSITY SCORE METHODS IN THE CONTEXT OF COVARIATE MEASURE-MENT ERROR 13 July 2015, 3:30 p.m.-4:15 p.m. (15:30-16:15)



#### Lawrence Hubert

University of Illinois at Urbana -Champaign, USA 2015 Psychometric Society Career Award for Lifetime Achievement AN OLD TALE OF TWO COMPUTATIONAL APPROACHES TO REGRESSION: UPDATED FOR THE 21ST CENTURY 15 July 2015, 11:00 a.m.-12:00 noon (11:00-12:00)

### **Sy-Miin Chow**

Pennsylvania State University, USA 2015 Psychometric Society Early Career Award FITTING AND EVALUATING DYNAMICAL SYSTEMS MODELS: CURRENT TECHNIQUES AND UNRESOLVED CHALLENGES 15 July 2015, 3:25 p.m.-4:10 p.m. (15:25-16:10)

### Sophia Rabe-Hesketh

University of California, Berkeley, USA Presidential Address: IGNORING NON-IGNORABLE MISSINGNESS 15 July 2015, 4:10 p.m.-5:10 p.m. (16:10-17:10)





### Li Cai

University of California, Los Angeles, USA THE UTILITY OF MULTIDIMENSIONAL ITEM RESPONSE MODELS IN EDUCA-TIONAL ASSESSMENT AND EVALUATION STUDIES 14 July 2015, 3:30 p.m.-4:15 p.m.

(15:30-16:15)



### Jee-Seon Kim

University of Wisconsin-Madison, USA CAUSAL INFERENCE WITH OBSERVA-TIONAL MULTILEVEL DATA: CHALLENGES & STRATEGIES 14 July 2015, 3:30 p.m.-4:15 p.m. (15:30-16:15)



### **INVITED SYMPOSIA**

(Refer to the Schedule-At-A-Glance for exact dates and times.)

#### **Detecting Cheating on Tests**

Chair: **Wim J. van der Linden**, McGraw-Hill Education CTB, Monterey, CA, USA Presenters: Arianto Wibowo, Vincent Kieftenbeld, Dmitry I. Belov, Wim J. van der Linden, Xi Wang

#### **Psychometrics in East Asia**

Chair: **Wen-Chung Wang**, The Hong Kong Institute of Education, Hong Kong Presenters: Tao Xin, Kohei Adachi, Soomook Lee, Bor-Chen Kuo

#### Advances in Modeling and Analysis for Educational Testing

Chair: **Jingchen Liu**, Columbia University, New York, NY, USA Presenters: Hua-Hua Chang, Matthias von Davier, Matthew Johnson, Gongjun Xu, Jingchen Liu

#### Handling Missing Data in Psychometrics

Chair: **Anders Skrondal**, Norwegian Institute of Public Health, Oslo, Norway Presenters: Irini Moustaki, C.A.W. Glas, Victoria Savalei, Anders Skrondal, Joost van Ginkel

#### Publication Trade Secrets: Straight from the Editors' Mouths

Chair: **Jimmy de la Torre**, Rutgers, The State University of New Jersey, New Brunswick, NJ, USA

Presenters: Willem Heiser, Li Cai, Kurt Geisinger, Hua-Hua Chang, Paul De Boeck, Irini Moustaki, Matthias von Davier, Jimmy de la Torre

#### Roger E. Millsap Tribute Symposium: Perspectives on Measurement Invariance

Chairs: **Paul De Boeck**, The Ohio State University, Columbus, OH, USA and **Jelte Wicherts**, Tilburg University, Tilburg, the Netherlands Presenters: Oi-Man Kwok, Suzanne Jak, Ting Wang, Hao Wu, Jelte Wicherts, Paul De Boeck

### **CONTRIBUTED SYMPOSIA**

#### (Refer to the Schedule-At-A-Glance for exact dates and times.)

#### **New Developments in Network Psychometrics**

Chair: **Riet van Bork**, University of Amsterdam, the Netherlands Presenters: Denny Borsboom, Claudia van Borkulo, Sacha Epskamp, Riet van Bork

**Modeling Responses and Response Times to Psychological Tests** Chair: **Dylan Molenaar**, University of Amsterdam, Amsterdam, the Netherlands

Presenters: Abe Hofman, Paul De Boeck, Gunter Maris, Han van der Maas, Dylan Molenaar

### Psychometric Issues in Large Scale Assessment in the International Context

Chair: **Hongyun Liu**, Beijing Normal University and Xiaohong Gao, ACT, Inc., Iowa City, IA, USA Presenters: Tao Xin, Dongmei Li, Xin Li, Danhui Zhang, Xiaohong Gao



Chair: **Silvia Cagnone**, University of Bologna, Italy Presenters: Marco Alfò, Paolo Giordani, Maria Francesca Marino, Silvia Bianconcini, Silvia Cagnone

**Computerized Multistage Testing: Theory and Applications** Chair: **Duanli Yan**, Educational Testing Service (ETS), Princeton, NJ, USA Presenters: Yi Zheng, Oliver Zhang, Chris Han, Duanli Yan



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### **PROGRAM EVENTS**

### **Group Photo**

Monday, July 13: 9:40 a.m. (09:40) Main Building – Jingshi Square

Promptly at 9:40 a.m. (09:40) a Conference sponsored group photo will be taken. The photo is sponsored by Mplus (Muthén & Muthén).

Please meet promptly at the Main Building at the BNU campus (refer to the walking map for the exact location).

The group photo will be posted on the Society website for attendees to download following the conference.

### Welcome to Beijing Poster Reception

Monday, July 13: 4:30 p.m.-6:30 p.m. (16:30-18:30) Jingshi Xuetang Building, Foyer areas

Join the Society and local BNU hosts for a wonderful evening to welcome meeting attendees and explore a diverse collection of research at the conference poster session. Discuss topics that are sure to pique your interest with your peers in a casual, fun, and informal setting. The event includes an hors d'oeuvres reception featuring Chinese flair and beverages. Authors will be standing by their posters between 4:30 p.m. and 6:30 p.m. (16:30-18:30). This event is also open to meeting attendee guests at no additional charge.

#### **Closing Reception & Banquet Dinner**

Wednesday, July 15: 7:00 p.m.-9:30 p.m. (19:00-21:30) Jingshi Hotel: Dining Hall–1st Floor Dining Hall–2nd Floor

Join us at the Jingshi Hotel Dining Hall for a final elegant dinner, host bar, and networking with fellow attendees. The Society has arranged two locations for the closing banquet. No formal closing remarks will take place; therefore, attendees can choose to dine in either dining hall located on the first or second floors of the hotel.

Your guest is welcome to the banquet for an additional fee. Stop by the Society registration desk located in the Lobby of the Jingshi Hotel to inquire. Guest banquet tickets cost \$55 USD.

### **IMPS Excursion Trip**

Thursday, July 16: 7:15 a.m.-7:00 p.m. (07:15-19:00) Visit the Great Wall, the Summer Palace, and National Stadium.



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(c) Shizhao, distributed under a CC-BY 2.0 license

Join the Society and fellow conference goers on a full-day excursion to see some of Beijing's best tourist attractions. Transportation will depart from the Jingshi Hotel on Thursday morning. The first stop will be the Great Wall of China. The second stop includes a picnic lunch and exploring at the Summer Palace. On our way back to the hotel, we will pass by the National Stadium (The Birds Nest) and the National Aquatic Center (The Watercube). The bus will stop for photo opportunities here (approximately 10-20 minutes) for those interested in snapping a few photos from the bus window. Attendees are welcome to exit, explore these grounds on their own, and arrange transportation on their own back to the hotel. Both attractions will close around 7:00 p.m. (19:00).



### **PROGRAM EVENTS**

### Excursion Schedule\*: Thursday, July 16: 7:00 a.m.-7:00 p.m. (07:00-19:00)

7:00 a.m.-7:55 a.m. (07:00-07:55) Load buses—Depart at 8:00 a.m. (08:00) sharp!

8:00 a.m.-9:30 a.m. (08:00-09:30) Transfer to Great Wall

9:30 a.m.-12:30 p.m. (09:30-12:30) Visit Great Wall at the Badaling Section

12:30 p.m.-1:00 p.m. (12:30-13:00) Lunch distribution as buses reload. (Attendees may choose to eat their lunch on the way to the Summer Palace, or wait to have a picnic lunch on the Summer Palace grounds.)

12:30 p.m.-1:00 p.m. (12:30-13:00) Load buses—Depart at 1:00 p.m. (13:00) sharp!

1:00 p.m.-2:00 p.m. (13:00-14:00) Transfer to Summer Palace

2:00 p.m.-4:15 p.m. (14:00-16:15) Visit Summer Palace

4:15 p.m.-4:45 p.m. (16:15-16:45) Load buses at Summer Palace–Depart at 4:45 p.m. (16:45) sharp!

4:45 p.m.-5:15 p.m. (16:45-17:15) Transfer back to hotel, en route visit the National Stadium.

Group to view the Bird's Nest and Water Cube from buses.

#### 5:15 p.m.-6:00 p.m. (17:15-18:00)

Bus will go around the National Stadium grounds to allow attendees to snap pictures from the bus of the Bird's Nest and Water Cube, stopping for 5-10 minutes at each location. (Pending the driver location, buses will allow attendees to get off the bus to snap a few pictures where the bus stops briefly. However, anyone who leaves the bus area to explore the grounds further will be required to get their own transportation back to their hotel.)

6:00 p.m.-6:30 p.m. (18:00-18:30)

Return back to the Jingshi Hotel to drop off attendees. (At the very latest the bus will return by 7:00 p.m. (19:00).)

\*IMPORTANT NOTE: The times above are approximate. Depending on traffic, road construction, weather, and other related issues, shuttles will attempt to stay as close to this schedule as possible, but we please ask your patience if there are unexpected delays. Please pay close attention to instructions from your tour guide/volunteer, who will be located on your bus, to ensure departure times have not changed.

#### ADDITIONAL NOTES:

- All attendees should line up in the Jingshi Hotel Lobby with the group they would like to sit with on the bus transportation. Once the attendee and their guests enter the bus, they will be riding the same bus all day. (Each bus will be numbered. Attendees will receive a ticket with their bus assignment the morning of the Excursion.)
- Location of drop-off/pick-up at the Great Wall will be the same place in the parking lot. Please pay close attention to your bus location as you exit the bus to ensure you are able to relocate your assigned bus at the end of the event.
- Location of drop-off/pick-up at the Summer Palace will be different: Drop-off: New Palace Gate
  - Pick-up: North Palace Gate
- Anyone no longer able to attend the Excursion should stop by the meeting registration desk to make the staff aware of your change of plans. Thank you.

#### **Great Wall Tour Company Tips:**

- 1. Things to take: sports shoes or hiking boots, sticks, cap, sunglasses, sunscreen, bottles of water.
- 2. Use toilets at the entrance of the Wall: There are no toilets at the Wall. (Please always carry your own toilet paper.)
- 3. Be a green and responsible visitor, taking nothing but photos and leaving nothing but footprints.
- 4. Don't go to tower 15+ as you won't make it back in time. You can access the lift, but we don't recommend it during the busy season. Longer lines and longer wait times mean that attendees might not make it back in time to catch the IMPS transportation that leaves at 1:00 p.m. (13:00) sharp!

#### Summer Palace Tour Company Tips:

- 1. We do not have many specific tips when visiting the Summer Palace, as it is easy to explore and enjoy the attractions.
- 2. Maps of the grounds are available for purchase on site. (Main attraction: Tower of the Fragrance of the Buddha).
- 3. Remember: It will be crowded in Summer Palace during the summer vacation, therefore, plan accordingly per the potential longer lines and wait times.
- 4. We do not recommend using the boats/boat rides at the Summer Palace during the busy season if you are planning to explore other parts of the grounds, as it is difficult to fit both sightseeing and a boat ride into the Excursion timeframe.
- 5. Please make sure you keep in mind the meeting location and meeting time at the end of this Excursion, as the pick-up location is different than where attendees were dropped off. IMPS transportation is scheduled to leave at 4:45 p.m. (16:45) sharp!



### **GENERAL CONFERENCE INFORMATION**

### Name Badge Policy

Conference name badges are required for entrance to all conference events.

### **Registration & Information Desk**

Conference registration and information desk will be available in the main lobby of the Jingshi Hotel throughout the Annual Meeting, July 12 to July 15. A representative from the Psychometric Society Office is available to offer assistance during the conference to answer questions, renew memberships, or assist those interested in joining the Psychometric Society. To join online go to: https://psychometricsociety.org/user/register.

Hours of Operation: Sunday, July 12 7:45 a.m.-12:00 noon (07:45-12:00) Monday, July 13 7:00 a.m.-5:00 p.m. (07:00-17:00) Tuesday, July 14 7:00 a.m.-5:00 p.m. (07:00-17:00) Wednesday, July 15 7:00 a.m.-3:30 p.m. (07:00-15:30)

#### **Information for Presenters**

#### Copies

If you plan to distribute paper handouts during your presentation, you are responsible for copying and providing them at the conference. There are NO conference-sponsored copy machines for your use. Presenters are welcome to copy/print on site at the Jingshi Hotel. The cost ranges between 1-5 RMB per page. The hotel front desk staff can assist with this request. Another option is to send your document directly to the campus printer, Gang ZHU, via email at: 15001305259@163.com. The price ranges between 0.5-1 RMB. The printer can deliver your content directly to the Jingshi Hotel for pick-up.

#### Session Rooms

All session rooms will be equipped with an LCD video projector, PC computer with DVD drive, USB hub, Internet connection, audio for the computer, a projection screen, wireless lavaliere microphone, mouse and slide advancer, laser pointer, and a podium with a microphone. A MAC computer is available on request. Please arrange this on site at least three hours prior to your session start time (not your lecture time). Please arrange this through the Society registration desk on site. Presenters are also welcome to bring their own laptop (and own connection cords) to connect with the session room LCD video projector. Otherwise, each meeting room will provide one PC computer (with English keyboard) in each presentation room with the following software:

Windows 7: Office 2010, IE 10, Firefox, Chrome, Acrobat Reader XI, iTunes 11, QuickTime 7.7.5, VLC 2.0.6. page 16 Mac OS X 10.84: Office 2011, Firefox, Chrome, Safari 6.0.5, iTunes 11, VLC 2.0.5.

If you need assistance prior, during, and/or after a presentation, you may request assistance from the **volunteers wearing the orange IMPS Volunteer hat**. They will contact the audiovisual technicians on call to assist you.

#### Speaker and Presenter Testing and Practice Room

Speakers may test their presentations using one of BNU campus computer systems between 7:00 a.m.-5:00 p.m. (07:00-17:00) located in the Yingdong Conference Hall, in the Mini Meeting Room on the 2nd Floor. A PC will be available for your use Monday-Wednesday to test and practice your presentation. First come, first served.

### **Poster Session**

Presenters will put up posters on Monday, July 13, from 3:00-4:30 p.m. (15:00-16:30) and authors must stand with their poster from 4:30 p.m.-6:30 p.m. (16:30-18:30). Posters should be removed by authors following the session by 7:00 p.m. (19:00). Any posters not removed after the session will be kept at the conference registration & information desk until Wednesday, July 15 at 3:30 p.m. (15:30) and then will be recycled by the Jingshi Hotel.

#### Session Chair/Moderator & Volunteers Training

Monday, July 13: 7:50 a.m.-8:10 a.m. (07:50-08:10) Yingdong Conference Hall, Conference Room 2 (2nd Floor).

If you have volunteered to moderate a session and/or are a chairperson of a session, please attend a short training to learn about your responsibility and how to troubleshoot the audiovisual equipment. You will be running the sessions, so understanding the equipment and how the sessions will flow consistently between all sessions and rooms will help ease your mind. This is also an opportunity for the conference organizers to discuss their vision of the flow for the presentations.

#### **Conference Meals & Receptions**

Breakfast will be offered at each Society hotel. The conference will provide morning and afternoon beverage service during the session breaks, and a daily buffet lunch will be served at The Northwestern Restaurant (refer to walking map for exact location) over the lunch break. *Don't forget your daily lunch ticket*. Monday night will feature reception foods showcasing local Chinese fare. On Wednesday evening, an elegant traditional Chinese banquet will be located at the Jingshi Hotel. See your conference schedule for specific times and locations. **If you need assistance in finding event and session buildings throughout the conference, IMPS 2015 volunteers will be wearing orange IMPS Volunteer hats.** 



### **GENERAL CONFERENCE INFORMATION**

### Luggage Storage on Your Departure Day

Attendees who check out of their hotel rooms in the morning are encouraged to store their luggage at their hotel front desk.

### **Conference Message Board**

The Conference Message Board is located near the registration and information desk in the Jingshi Hotel Lobby. Feel free to post job vacancies, messages for colleagues, announcements, and/or other items of interest.

### **Small Group Meeting Space**

A small boardroom has been reserved for unexpected meetings when conference attendees would like to take advantage of having colleagues in one place and to meet face-to-face. The Society has reserved space at the Yingdong Conference Hall, in Conference Room 2 (2nd Floor), available Monday through Wednesday, 7:00 a.m.-5:00 p.m. (07:00-17:00) on a first-come, first-served basis, with a signup sheet posted outside the room in 30-minute increments. We encourage you to take advantage of this unique opportunity to gather together.

### **Special Accommodations**

The majority of the BNU campus is accessible. If you require special accommodations during the conference, please visit the Psychometric Society staff located at the registration & information desk in the Jingshi Hotel Lobby.

### **Conference Attire**

Business casual attire is suggested for the Conference but is not mandatory. We recommend bringing a sweater or jacket to the conference, which is kept quite cool inside the buildings. Sessions will be located in different buildings on the BNU campus, so we highly recommend bringing comfortable walking shoes, layers, and an umbrella.

### **Photography Disclosure**

Portions of this event may be videotaped and photographed by the conference and/or the media. By attending this Conference, you accept the possibility that you may be videotaped or photographed.

### IMPS Campus Session Buildings Wireless Internet Access

To enable your connection to the BNU wireless network, open your web browser. You will see a login screen: http://172.16.202.201/Eng.html\_. Use the username: imps2015 Use the password: imps2015

NOTE: Please limit your use to one device per person at a time. If you have any problems logging in, you may contact Xian Wang at: nicabeinternation@bnu.edu.cn.

### Jingshi Hotel Wireless Internet Access

Please refer to the flyer located in the attendee conference material bag for instructions. The hotel has its own WiFi system, separate from the BNU campus Internet.

### **Internet Kiosk Computer**

One (1) free Internet kiosk computer desk will be located in the lobby of the Jingshi Hotel. Attendees and/or guests of the IMPS 2015 conference are welcome to use this computer for items such as checking email and looking up flight information. (The use of this computer is on a firstcome/first-served basis. Please limit your use to 10-minutes at a time if other attendees are waiting in line.)

### Memory Sticks Containing the IMPS 2015 Program and Abstract Books

The Society has placed the IMPS 2015 Program Book, Abstract Book, and Poster Abstract Book on several memory sticks for temporary use on site. Memory Sticks (thumb drives) for your use will be located at the Internet Kiosk Computer Desk for ease of download to your personal computer. (If you need additional assistance, please feel free to contact the registration team located at the registration desk in the Jingshi Hotel Lobby.)

### Lost and Found

Items found during the conference may be turned in at the Society registration and information desk, located in the lobby of the Jingshi Hotel. You may retrieve lost items from the Society during the registration desk open hours from Sunday, July 12, through Wednesday, July 15, 2015. Any lost and found items left after the conference will be left at the Jingshi Hotel front desk. If unclaimed, items will be donated to charity after one (1) week.





### **GENERAL CONFERENCE INFORMATION**

### Language, Communication, and Traveler Safety Tips

Beijing is generally a very safe city for travelers. There is no shortage of things to see or do during your visit. As with any major city, there are tips for being safe while in Beijing.

- 1. Traffic in Beijing is very heavy. Unlike many western cities, pedestrians do not have the right of way when crossing streets in Beijing. Cross only at marked crossing areas, and watch traffic carefully.
- 2. While most hotel registration staff and most people on the Beijing Normal University campus speak English, this is not true of the general population. For example, taxi drivers generally do not speak English. It is therefore important to be well prepared and bring along maps with Chinese instructions for getting to your hotel and to the conference site.
- 3. As with any major city, there are pickpockets and people who will attempt to steal from tourists. You should take care with your bags and personal belongings when exploring. Keep your cash separate from your wallet and do not leave personal items unattended in public areas.
- 4. Avoid walking, running, or exploring alone. Always let a friend or the hotel know when you are going out exploring, and when you plan to return.
- 5. Street and subway signs in Beijing are generally both in Chinese characters and pinyin (phonetic transcription in Roman letters).
- 6. There are cellphone apps for translating between Chinese and English (and other languages). Many of these rely on an Internet connection.
- 7. Avoid wearing your conference badge when not in the conference area. When in the conference areas, you should wear your conference ID at all times.
- 8. When in your hotel room, do not open the door for strangers. If someone knocks on your door claiming to be with the hotel, you should feel free to contact the front desk to verify their identity. Keep your door securely locked when in your room.
- 9. Store your personal valuables in the room safe or hotel safe deposit box. If your hotel does not retain your passport, you should consider storing it in your room safe or a hotel safe deposit box.
- 10. If you have a safety and security issue, you should notify the conference staff located in the Lobby of the Jingshi Hotel. They will work with the necessary resources to assist you. IMPS has compiled comprehensive plans for addressing emergencies on site. Please report any security issues to conference staff immediately.

### Hospital and Health Center Near Campus

The Second Artillery General Hospital of Chinese People's Liberation Army Address: No.16 Xinjiekouwai Street, 100875 P.R. CHINA Located to the southeast of Jingshi Hotel Phone: +86-10-66343337, +86-15311543337 Website: http://www.epzyy.cn/ Hours: 24 hours

The BNU Community Health Service Center Address: Located on the BNU campus Phone: +86-10-58808223 Hours: 24 hours

### Pharmacies Near Campus

Xin Xing De Sheng Pharmacy (Xueyuan South Road site) First Floor, Xin Rong Quan Property Building No.4 Xueyuan South Road Haidian District, Beijing Phone: +86-10-62266977 Hours: 24 hours

De Wei Zhi Pharmacy (Bei Tai Ping Zhuang site) No.8 Xinjiekouwai Street, Xicheng District (across the street from the east gate of BNU). Phone: +86-10-62023278, +86-10-62022268 Hours: 24 hours

## Exercise, Parks, Spa, & Pool Recreational Facilities/Locations

Places to exercise include Rendinghu Park near the Holiday Inn and Shuangxiu Park near the Garden Hotel. The Holiday Inn and Garden Hotel have well-equipped fitness centers. Check with your hotel front desk/concierge for exact fitness amenities within your hotel. The Garden Hotel also offers a sauna complex where guests can purchase services to relax, get a massage, pedicure, and other salon treatments.

Beijing Normal University campus welcomes Conference visitors to use its recreational facilities. To use the facilities you will need to show a photo I.D., your conference badge, and pay a small guest fee per day usage.

We sincerely hope you have a wonderful visit to Beijing, China.

Thank you for joining us at IMPS 2015!

### **COMMITTEES**

### IMPS 2015 Organizing Committee

Chair: Sophia Rabe-Hesketh President University of California, Berkeley Graduate School of Education 3659 Tolman Hall, #1670 Berkeley, CA, 94720-1670 Telephone: 510 642-5287 Fax: 510 642-4803 Email: sophiarh@berkeley.edu

Members: Albert Maydeu-Olivares Immediate Past President University of Barcelona Barcelona, Spain

Terry Ackerman President-Elect University of North Carolina Greensboro, NC, USA

Luz Bay Secretary The College Board Newtown, PA, USA

Daniel Bolt Treasurer University of Wisconsin Madison, WI, USA

Regular Members (2014-2015) Li Cai University of California Los Angeles, CA, USA

Regular Members (2015-2016) Paul De Boeck The Ohio State University Columbus, OH, USA

Klaas Sijtsma Tilburg University Tilburg, the Netherlands

Adjunct Members (2015) Hua-Hua Chang University of Illinois Urbana Champaign, IL, USA Anders Skrondal Norwegian Institute of Public Health Oslo, Norway

Tao Xin Beijing Normal University Beijing, China

Danhui Zhang Beijing Normal University Beijing, China

#### IMPS 2015 Local Organizing Committee

Tao Xin Co-Local Host Vice Director, National Innovation Center for Assessment of Basic Education Quality Beijing Normal University No. 19, Xinjiekou Wai Street Haidan District Beijing, China, 100875 Telephone: +86 010-58800178

Hongyun Liu Co-Local Host Professor Beijing Normal University No. 19, Xinjiekou Wai Street, Haidan District Beijing, China, 100875 Telephone: +86 010-58800821

Jia Liu Beijing Normal University Beijing, China

Ning Han National Education Examinations Authority Ministry of Education, China

Jia Yong Li Beijing Normal University Beijing, China

Hong Yun Liu Beijing Normal University Beijing, China Xiao Man Wei Beijing Normal University Beijing, China

Shu Mei Zhang Beijing Normal University Beijing, China

Tao Yang Beijing Normal University Beijing, China

Xiang Dong Yang East China Normal University China

Min Qiang Zhang South China Normal University China

Jian Tao Northeast Normal University China

For more information about the Psychometric Society or membership, contact the Psychometric Society Management Company: The Rees Group, Inc. 2424 American Lane Madison, WI 53704 Telephone: +1-608-268-4712 Fax: +1-608-443-2474 Email: membership@psychometricsociety.org



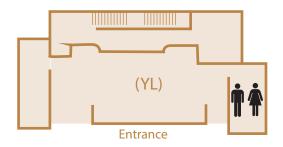




### **FLOOR PLANS**

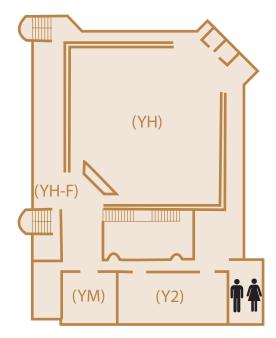
### Yingdong Conference Hall (Y)

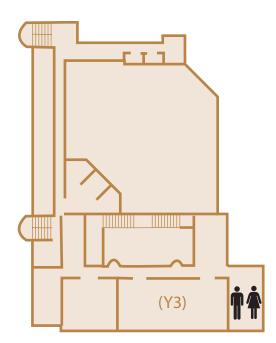
**First Floor** (YL) Main Lobby Entrance •Exhibit and Sponsor Area



**Second Floor** (YH) Lecture Hall (YH-F) Foyer Area







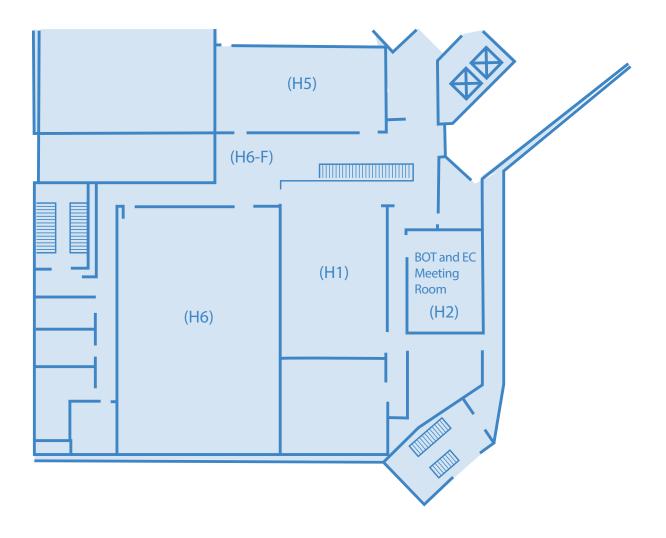
#### **Third Floor** (Y3) Conference Room 3



### **FLOOR PLANS**

### Jingshi Hotel (H): Third Floor

**Third Floor** (H6) Room 6 (H5) Room 5 (H1) Room 1 (H6-F) Foyer Area **Not Shown** (HL) Hotel Lobby (HD1) Dining Room 1 (HD2) Dining Room 2



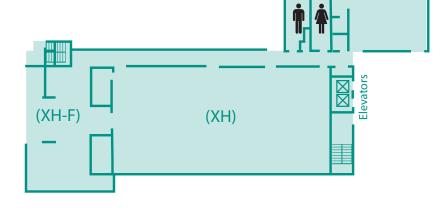


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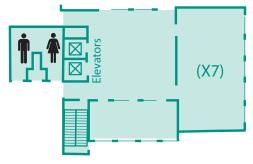
### **FLOOR PLANS**

### Jingshi Xuetang (X)

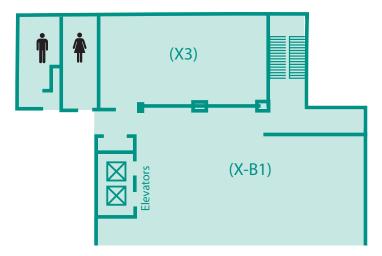
**First Floor** (XH) Jingshi Hall (XH-F) Foyer Area



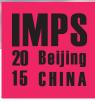
#### **Third Floor** (X7) The 7th Conference Room



#### Basement (B1) (X-B1) Lobby (X3) The 3rd Conference Room



### Walking Map



-1

















中国基础教育质量监测协同创新中心 Collaborative Innovation Center of Assessment toward Basic Education Quality CCA-BEQ







PEARSON











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