

HONG JIAO

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1. PERSONAL INFORMATION

A. CURRENT POSITION

- 2013 – **Associate Professor**
Measurement, Statistics, and Evaluation (EDMS), Department of Human Development and Quantitative Methodology, University of Maryland, College Park, MD.
- 2009 – **Co-Director**
Maryland Assessment Research Center for Education Success (MARCES), University of Maryland, College Park, MD.
- 2011 – **Honorary Guest Professor**
Beijing Normal University, Beijing, China

B. PREVIOUS PROFESSIONAL EMPLOYMENT

- 2007 –2013 **Assistant Professor**
Measurement, Statistics, and Evaluation (EDMS), Department of Human Development and Quantitative Methodology, University of Maryland, College Park, MD.
- 2003 –2007 **Psychometrician II and I**
Psychometric and Research Service, Harcourt Assessment, Inc. San Antonio, TX.
- 6/2002 –7/ 2002 **Lenke Psychometric Fellow**
Psychometric and Research Service, Harcourt Educational Measurement, Inc. San Antonio, TX.
- 5/1999 –7/ 2000 **Measurement and Statistics Intern**
Student Assessment, Leon County Schools, Tallahassee, FL.

- 1/1999 – 4/1999 **Teaching Assistant**
College Mathematics in Department of Mathematics, Florida State University,
Tallahassee, FL.
- 2/1992 – 7/1998 **Lecturer of English and Test Specialist**
Department of Foreign Languages, Shanghai Jiao Tong University, Shanghai,
China.

C. EDUCATION

Ph.D. in Measurement, Statistics, and Evaluation

Florida State University, Tallahassee, FL.

M.A. in Linguistics and Applied Linguistics

Shanghai Jiao Tong University, Shanghai, China. (Graduated with honor)

B.S. in English for Science and Technology

Shanghai Jiao Tong University, Shanghai, China.

2. RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES

Note: * indicates student coauthors.

A. BOOKS

Books Edited (Published)

1. Lissitz, B., & **Jiao, H.** (2012, Ed.). *Computers and their impact on state assessment: Recent history and predictions for the future*. Information Age Publisher.

Chapters in Books (Published)

1. **Jiao, H.**, & Chen*, Y.-F. (2014). Differential item and testlet functioning. In A. Kunnan (Ed.), *The Companion to Language Assessments* (pp.1282-1300). John Wiley & Sons, Inc.
2. **Jiao, H.**, & Lissitz, R. W. (2012). Computer-based testing in K-12 state assessments: An Introduction. In R. W. Lissitz & H. Jiao (Ed.), *Computers and their impact on state assessment: Recent history and predictions for the future* (pp. 1-21). Information Age Publisher.
3. Templin, J. & **Jiao, H.** (2011). Applying model-based approaches to identify performance categories. In G. Cizek (Ed.), *Setting performance standards: foundations, methods, and innovations* (pp. 379-397). New York, NY: Routledge.

4. **Jiao, H.**, Wang, S., Kamata, A. (2007). Modeling local item dependence with the hierarchical generalized linear model. In E. V. Smith & R. M. Smith (Eds.), *Rasch Measurement: Advanced and Specialized Applications*. JAM press.
5. **Jiao, H.** (2004). Evaluating the Dimensionality of the Michigan English Language Assessment Battery. *Spaan Fellow Working Papers in Second or Foreign Language Assessment: Volume 2*. University of Michigan, Ann Arbor, MI.

B. ARTICLES IN REFEREED JOURNALS

Articles in Refereed Journals (Published)

1. **Jiao, H.**, Wang, S., & He, W. (2013). Estimation methods for one-parameter testlet models. *Journal of Educational Measurement*, 50, 186-203.
2. Chen, Y.-F. & **Jiao, H.** (in press). Exploring the utility of background and cognitive variables in explaining latent differential item functioning: An example of the PISA 2009 reading assessment. *Educational Assessment*.
3. Wang, S., **Jiao, H.**, & Zhang, L. (in press). Validation of longitudinal achievement constructs of vertically scaled computerized adaptive tests: A multiple-indicator, latent-growth modeling approach. *International Journal of Quantitative Research in Education*.
4. Tao, J., Xu*, B., Shi, N., & **Jiao, H.** (2013). Refining the two-parameter testlet response model by introducing testlet discrimination parameters. *Japanese Psychological Research*. 55, 284-291.
5. Wang, S., McCall, M., **Jiao, H.**, & Harris, G. (2013). Construct validity and measurement invariance of computerized adaptive testing: application to Measures of Academic Progress (MAP) using confirmatory factor analysis. *Journal of Educational and Developmental Psychology*, 3, 88-100.
6. Li*, Y., **Jiao, H.**, & Lissitz, R.W. (2012). Applying multidimensional IRT models in validating test dimensionality: An example of K-12 large-scale science assessment. *Journal of Applied Testing Technology*, vol. 13, n2.
7. **Jiao, H.**, Macready, G., Liu*, J., & Cho*, Y. (2012). A mixture Rasch model based computerized adaptive test for latent class identification. *Applied Psychological Measurement*, 36, 469-493.
8. **Jiao, H.**, Kamata, A., Wang, S., & Jin, Y. (2012). A multilevel testlet model for dual local dependence. *Journal of Educational Measurement*, 49, 82-100.
9. **Jiao, H.**, Liu*, J., Haynie, K., Woo, A., & Gorham, J. (2012). Comparison between dichotomous and polytomous scoring of innovative items in a large-scale computerized adaptive test. *Educational and Psychological Measurement*, 72, 493 - 509.

10. **Jiao, H.**, Lissitz, B., Macready, G., Wang, S., & Liang*, S. (2011). Exploring levels of performance using the Mixture Rasch Model for standard setting. *Psychological Testing and Assessment Modeling*, 53, 499-522.
11. **Jiao, H.**, & Wang, S. (2010). A multifaceted approach to investigating the equivalence between computer-based and paper-and-pencil assessments: An example of Reading Diagnostics. *International Journal of Learning Technology*, 5, 264-288.
12. Wang, S., & **Jiao, H.** (2009). Construct equivalence across grades in a vertical scale for a K-12 large-scale reading assessment. *Educational and Psychological Measurement*, 69, 760-777.
13. Wang, S., **Jiao, H.**, Young, M. J., Brooks, T., & Olson, J. (2008). Comparability of computer-based and paper-and-pencil testing in K-12 reading assessments: A meta-analysis of testing mode effects. *Educational and Psychological Measurement*, 68(1), 5-24.
14. Wang, S., **Jiao, H.**, Young, M. J., Brooks, T., & Olson, J. (2007). A meta-analysis of testing mode effects in Grade K-12 Mathematics Tests. *Educational and Psychological Measurement*, 67(2), 219-238.
15. **Jiao, H.**, Wang, S., & Kamata, A. (2005). Modeling local item dependence with the hierarchical generalized linear model. *Journal of Applied Measurement*, 6(3), 311-321.
16. Wang, S., & **Jiao, H.** (2005). Development and application of the Stanford achievement test, diagnostic test, and English proficiency test. *Examinations Research*, 1(1), 118-128. (in Chinese with English abstract)

C. MONOGRAPHS, REPORTS, AND EXTENSION PUBLICATIONS

1. **Jiao, H.**, Haynie, K., & Liu*, J. (2011). *A partial credit modeling study of the NCLEX innovative items*. (Research Report submitted to the Joint Research Committee, NCSBN). College Park, MD: University of Maryland.
2. **Jiao, H.**, Lissitz, R., & Hou*, X. (2010). *Computer-based testing in the K-12 state assessments*. (MARCES Technical Report). College Park, MD: University of Maryland.
3. Lissitz, R., Li*, Y., & **Jiao, H.** (2009). *Investigation of Factorial Structure of the 2009 HSA Biology Test across Accommodated and non-accommodated Students*. (MARCES Technical Report). College Park, MD: University of Maryland.
4. **Jiao, H.**, Wang, S., Johnson, M., & Jiang, J. (2007). *Investigation of 2006 FCAT Reading Grade 3 Test*. (Research Report). San Antonio, TX: Harcourt Assessment.

5. **Jiao, H.** (2007). *The calibration, equating, and scaling specification for the spring 2007 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
6. *Technical Report for the Michigan Educational Assessment Program 2006-2007 Cycle.* (2007). Harcourt Assessment Inc. San Antonio, TX.
7. *Technical Report for the Michigan Merit Exit Program 2006-2007 Cycle.* (2007). Harcourt Assessment Inc. San Antonio, TX.
8. **Jiao, H.** (2007). *The calibration, equating, and scaling specification for the fall 2006 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
9. **Jiao, H.** (2006). *Sampling Design for the Michigan Educational Assessment Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
10. Vukmirovic, Z., & **Jiao, H.** (2006). *Calibration and equating options for FCAT writing + assessment.* (White Paper). San Antonio, TX: Harcourt Assessment.
11. **Jiao, H.** (2006). *Test Construction Specification for the Michigan Educational Assessment Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
12. **Jiao, H.,** Wang, S., He, W., & Vukmirovic, Z. (2006). *The comparability of the spring 2006 online pilot test and the paper-and-pencil tests for the Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
13. **Jiao, H.** (2006). *The test construction specification for the fall 2006 and spring 2007 test administrations for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
14. **Jiao, H.** (2006). *The calibration, equating, and scaling specification for the spring 2006 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
15. **Jiao, H.,** & Vukmirovic, Z. (2006). *The calibration, equating, and scaling specification for the Fall 2005 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
16. Vukmirovic, Z., Jiang, J., & **Jiao, H.** (2005). *Comparison of different scoring methods of FCAT writing + assessments.* (Research Report). San Antonio, TX: Harcourt Assessment.
17. **Jiao, H.,** & Vukmirovic, Z. (2005). *The comparability of the spring 2005 online pilot test and the paper-and-pencil tests for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.

18. **Jiao, H.** (2005). *The test construction specification for the fall 2005 and spring 2006 test administrations for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
19. **Jiao, H.,** & Vukmirovic, Z. (2005). *The calibration, equating, and scaling specification for the spring 2005 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
20. **Jiao, H.,** Ayres, G, & Vukmirovic, Z. (2005). *Pre-equating vs. post-equating for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
21. **Jiao, H.,** Ayres, G., & Vukmirovic, Z. (2005). *Impact of removing open-ended items from live administration for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
22. **Jiao, H.,** Chu, K., & Vukmirovic, Z. (2005). *Comparison of writing prompts in field-test and live administration for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
23. Wang, S, **Jiao, H.,** Young, M. J., Brooks, T., & Olson, J. (2005). *The effect of computerized test vs. paper-and-pencil test on K-12 student reading achievement: A meta-analysis.* (Research Report). San Antonio, TX: Harcourt Assessment.
24. **Jiao, H.,** Wang, S., Vukmirovic, Z., & Young, M. (2004). *A Study to Establishing the Vertical Scale for MCA-II Using the Stanford Achievement Test 10.* (Research Report). San Antonio, TX: Harcourt Assessment.
25. **Jiao, H.,** Wang, S. & Vukmirovic, Z. (2004). *Dimensionality Assessment for MCAS Grade 4, 7, and 10 ELA 2003 Test Administration.* (Research Report). San Antonio, TX: Harcourt Assessment.
26. **Jiao, H.,** & Vukmirovic, Z. (2004). *Test construction specifications for Minnesota Academic Assessments-II 2005 pilot test administration.* (Technical report). Harcourt Assessment, Inc. San Antonio, TX.
27. Wang, S., **Jiao, H.,** Young, M. J., Brooks, T., & Olson, J. (2004). *The effect of computerized test vs. paper-and-pencil test on K-12 student mathematics achievement: A meta-analysis.* (Research Report). San Antonio, TX: Harcourt Assessment.
28. Wang, S., **Jiao, H.,** Brooks, T., & Young, M. J. (2004). *Construct equivalence of Stanford Diagnostic Reading Test (Fourth Edition) between two administration modes.* (Research Report). San Antonio, TX: Harcourt Assessment.
29. Wang, S., **Jiao, H.,** Young, M. J., & Brooks, T. (2004). *Construct equivalence between customized and original Stanford Achievement Reading Comprehension Tests (Tenth Edition).* (Research Report). San Antonio, TX: Harcourt Assessment.

30. Davis, J., **Jiao, H.**, Vukmirovic, A., & Young, M. J. (2004). *Comparison between pre-equating and post-equating for large-scale state assessment program*. (Research report), Harcourt Assessment Inc. San Antonio, TX.
31. Stephenson, A., **Jiao, H.**, & Wall, N. (2004). *A performance comparison of native and Non-native speakers of English on an English Language Proficiency Test*. (Research report). Harcourt Assessment, Inc. San Antonio, TX.
32. *Nevada Technical Report for the CRT and HSPE Assessments 2002-2003 Cycle*. (2004). Harcourt Assessment Inc. San Antonio, TX.
33. **Jiao, H.**, & Paek, I. (2002). *Examining the relationship between the full and the abbreviated versions of the Stanford Diagnostic Tests for Reading and Mathematics*. Harcourt Educational Measurement. San Antonio, TX.
34. Cerrillo, T., Young, M. J., Skorupski, W., **Jiao, H.**, Paek, I., Shin, S., & Turner, J. (2002). *Performance Assessment research program: Analyses of bias and Differential Item Functioning on the New Standards Reference Examinations (Form E)*. Harcourt Educational Measurement, San Antonio, TX.

D. BOOK REVIEWS, OTHER ARTICLES, NOTES

1. **Jiao, H.** (2011). Book review: Bayesian Item Response Theory Modeling. *Psychometrika*. 76(2), 360-362.
2. **Jiao, H.** (2009). Diagnostic classification models: Which one should I use? *Measurement: Interdisciplinary Research & Perspective*, 7(1), 65-67.

E. TALKS, ABSTRACTS, AND OTHER PROFESSIONAL PAPERS PRESENTED

Invited Talks

1. **Jiao, H.**, & Lissitz, R. (2012, October). *Modeling latent growth using mixture item response theory*. To be presented in the Twelfth Annual Maryland Assessment Conference: *Value Added Modeling and Growth Modeling with Particular Application to Teacher and School Effectiveness*. University of Maryland, College Park.
2. **Jiao, H.** (2011, July). *Item response theory models for locally dependent item response data*. Presented in the Workshop on *Modern Psychometric and Statistical Methods for Large-Scale Education Assessments*. Beijing Normal University, Beijing, China.
3. **Jiao, H.** (2011, July). *Current status in K-12 state assessment programs in the USA*. Presented at Morning Star, Guangzhou, China.

4. **Jiao, H.** (2010, February). *Effects of items and person clustering on measurement precision*. Invited presentation at the Educational Psychology Colloquium in the Department of Human Development, University of Maryland, College Park.
5. **Jiao, H., & Wang, S.** (2004, August). *Psychometric issues in developing Stanford English proficiency test*. Presented at the International Examination Forum. Tianjin, China.
6. Wang, S., & **Jiao, H.** (2004, August). *Development of Stanford achievement and diagnostics Test*. Presented at the International Examination Forum. Tianjin, China.

Refereed National and International Conference Proceedings

1. **Jiao, H.,** Kamata, A., Van Wie, A., & Luo, Y. (2013, April). *A multilevel testlet model for multiple hierarchical levels of person clustering effects*. Paper presented at the 2013 Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
2. Li, T., **Jiao, H.,** Harring, J., & Macready, G. (2013, April). *Adding covariates to mixture item response models: a comparison of different approaches*. Paper to be presented at the 2013 Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
3. Chen, Y.-F., von Davier, M., & **Jiao, H.** (2013, April). *Comparison of different approaches to dealing with testlet effects in mixture item response theory modeling*. Paper to be presented at the 2013 Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
4. Chen, Y.-F., & **Jiao, H.** (2013, April). *Evaluating parameter recovery in the mixture Rasch model based computerized adaptive tests with missing data*. Paper to be presented at the 2013 Annual Meeting of the American Educational Research Association, San Francisco, CA.
5. Li, T., Xie, C., & **Jiao, H.** (2013, April). *Assessing fit of alternative polytomous item response models using posterior predictive model checking*. Paper to be presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
6. Xie, C., & **Jiao, H.** (2013, April). *The Rasch model plus ability based slipping*. Paper to be presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
7. Xie, C., Li, T., Rupp, A., & **Jiao, H.** (2013, April). *Posterior predictive model checking for dichotomous item response theory models with upper asymptote effects*. Paper to be presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
8. Xie, C., Lissitz, R., **Jiao, H.,** Kang, Y., & Li, Ming (2013). *Accounting for team-teaching in value-added modeling of teacher effectiveness: a real data analysis*. Paper to be presented at the annual meeting of the American Educational Research Association, Division D 2013 In-Progress Research Gala, San Francisco, CA.

9. Chen*, Y. F., & **Jiao, H.** (2012, April). *The impact of missing responses on parameter estimation and classification accuracy in a mixture Rasch model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, Canada.
10. Xie*, C., & **Jiao, H.** (2012, April). *A four-parameter multidimensional item response theory model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, Canada.
11. Cho*, Y., **Jiao, H.**, & Macready, G. (2012, April). *Simultaneous effects of different item discrimination profiles and item difficulty profiles in mixture 2PL models*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, Canada.
12. Cho*, Y., **Jiao, H.**, & Macready, G. (2012, April). *Assessing the effects of different item parameter profiles in mixture Rasch models*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, Canada.
13. **Jiao, H.**, Macready, G., Liu*, J., & Cho*, Y. (2011, April). *A mixture Rasch model based computerized classification test*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
14. **Jiao, H.**, Lissitz, R., & Zhu*, X. (2011, April). *Constructing a common scale in a testing program to model growth: Joint consideration of vertical scaling and horizontal equating*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
15. **Jiao, H.**, Mislevy, R., & Zhang*, Y. (2011, April). *A general framework for clustering effects in IRT modeling*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
16. **Jiao, H.**, von Davier, M., Kamata, A., & Chen*, Y-F. (2011, April). *A multilevel Rasch mixture testlet model*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
17. Liu*, J., & **Jiao, H.** (2011, April). *A comparison of estimation methods for an explanatory IRT model with person covariates in generalized (non)linear mixed model framework*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
18. Lu*, R., & **Jiao, H.** (2011, April). *Modeling local item dependence in multistage tests*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
19. Chen*, Y-F., & **Jiao, H.** (2011, April). *Explanation of latent differential item functioning based on a mixture Rasch model: characterizing latent classes with the inclusion of background and cognitive-related covariates*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.

20. Patarapichayatham*, C., Kamata, A., & **Jiao, H.** (2011, April). *Evaluation of the ability estimates under the bi-factor testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
21. **Jiao, H.**, & von Davier, M. (2010, April). *Parameter estimation of the Rasch mixture testlet model using the marginal maximum likelihood method*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO.
22. **Jiao, H.**, Kamata, A., Wang, S., & Jin, Y. (2010, April). *Simultaneous modeling of item and person dependence using multilevel Rasch measurement model*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO.
23. **Jiao, H.**, von Davier, M., & Wang, S. (2010, April). *Polytomous mixture Rasch testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
24. **Jiao, H.**, Lissitz, B., Macready, G., Wang, S., & Liang*, S. (2010, April). *Exploring using the Mixture Rasch Model for standard setting*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
25. Li*, Y., & **Jiao, H.** (2010, April). *Multilevel polytomous testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
26. Li*, Y., **Jiao, H.**, & Lissitz, B. (2010, April). *Investigation of content clustering in large-scale science assessments using Rasch multidimensional IRT and testlet models*. Paper presented at the NCME Graduate Student Poster Session, Denver, CO.
27. Lu*, R. & **Jiao, H.** (2010, April). *The effects of LID on multistage CAT*. Paper presented at the National Council on Measurement in Education, Denver, CO.
28. Wang, S., **Jiao, H.**, & Jin, Y. (2010, April). *Effect of ignoring hierarchical data structures on accuracy of vertical scaling: A mixed-effects Rasch Model approach*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
29. Wang, S. & **Jiao, H.** (2010, April). *Modeling LID in science assessments*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
30. **Jiao, H.**, Wang, S., & Lu*, R. (2009, April). *Mixture Rasch model for dichotomously scored testlet-based assessments*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA.
31. Lu*, R., & **Jiao, H.** (2009, April). *Detecting DIF using mixture Rasch model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA.

32. Wang, S., & **Jiao, H.** (2009, April). *Exploring relationship between static and dynamic vertical scaling from cross-section and longitudinal design perspective*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA.
33. **Jiao, H.**, & Wang, S., (2009, April). *The effects of anchor item selection on IRT true score equating with nonequivalent-group anchor-test design*. Paper accepted at the Annual Meeting of the American Educational Research Association, San Diego, CA.
34. **Jiao, H.**, Wang, S., Wan, L., & Lu*, R. (2009, April). *Investigation of local item dependence in scenario-based science assessments*. Paper accepted at the Annual Meeting of the American Educational Research Association, San Diego, CA.
35. Wang, S., & **Jiao, H.** (2009, April). *A longitudinal study of achievement gap: Gender and ethnicity difference in reading and mathematics progress*. Paper accepted at the Annual Meeting of the American Educational Research Association, San Diego, CA.
36. **Jiao, H.**, Wang, S., & Binici, S. (2008, November). *Applications of testlet models in investigation of content clustering in large-scale science assessments*. Paper presented at the Annual Meeting of the Florida Educational Research Association, FL.
37. **Jiao, H.**, & Wang, S. (2008, March). *Construct equivalence for vertically scaled science assessment*. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, NY.
38. **Jiao, H.**, Wang, S., & He*, W. (2008, March). *The sensitivity of Yen's Q_3 statistics in detecting local item dependence*. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, NY.
39. **Jiao, H.**, Wang, S., & He*, W. (2008, March). *Comparison of estimation methods of one-parameter testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York City, NY.
40. Wang, S., & **Jiao, H.** (2008, March). *Empirical evidence of construct equivalence of vertical scale across grades in K-12 large-scale standardized reading assessments*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York City, NY.
41. Wang, S., & **Jiao, H.** (2008, March). *Does large-scale standardized test violate the unidimensionality across grades? An empirical study of construct invariance of vertical scale of mathematics test*. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, NY.
42. Wang, S., & **Jiao, H.** (2008, June). *Validity of accommodated state assessments*. Paper presented at the National Conference of the Large-scale Assessment, Orlando, FL.

43. **Jiao, H.**, Wang, S., & Binici, S. (2007, November). *Investigating the comparability between online and paper-and-pencil versions of large-scale high school exit examinations*. Paper presented at the Annual Meeting of the Florida Educational Research Association, Tampa, FL.
44. Wang, S., **Jiao, H.**, & Young, M. J. (2007, November). *Effectiveness of using Stanford English Language Proficiency Test to identify English Language Learners*. Paper presented at the Annual Meeting of the Florida Educational Research Association, Tampa, FL.
45. **Jiao, H.**, & Wang, S. (2007, April). *The effects of the selection of vertical linking items on modeling student growth*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
46. **Jiao, H.**, & Wang, S. (2007, April). *The choice of vertical linking items on vertical scaling*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
47. **Jiao, H.**, & Wang, S. (2007, June). *Validity of assessing limited English proficiency student in state assessment programs*. Paper presented at the National Conference of the Large-scale Assessment, Nashville, TN.
48. He*, W., Wang, S., & **Jiao, H.** (2007, April). *Robustness of the SPRT procedure in CMT when local item independence assumption is violated*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
49. Wang, S., **Jiao, H.**, Young, M., Olson, J., & Brooks, T. (2007, April). *A meta-analysis of testing mode effects in K-12 reading assessments*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
50. Wang, S., & **Jiao, H.** (2007, April). *Construct validity and measurement invariance of large-scale standardized reading and mathematics tests under disability and LEP accommodations in K-12 education*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
51. Wang, S., Young, M., Brooks, T., **Jiao, H.**, & Skoglund, G. (2007, April). *A Comparison of computer-automated and human scoring methods for a large scale state-wide writing assessment in K-12 education*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
52. **Jiao, H.**, & Wang, S. (2006, June). *Comparison of vertical linking designs*. Paper presented at the National Conference of the Large-scale Assessment, San Francisco, CA.
53. **Jiao, H.**, Wang, S., Kamata, A., & Miyazaki, Y. (2006, April). *An investigation of local item dependence using multilevel testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.

54. **Jiao, H.**, Wang, S., Yi, Q., & Vukmirovic, Z. (2006, April). *The equivalence of the computer-based and paper-and-pencil versions of a large-scale diagnostic reading test*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
55. Lau, A. C., **Jiao, H.**, & Lam, W. (2006, April). *A simulation study to compare pattern scoring and number-correct scoring with 3PL-IRT model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
56. Wang, S. & **Jiao, H.** (2005, June). *Cost-benefits of using computerized adaptive test for large-scale state assessment*. In the session of "Technical and Policy Issues in Using Computerized Adaptive Tests in State Assessments: Promises and Perils". Paper presented at the National Conference of the Large-scale Assessment. San Antonio, TX.
57. **Jiao, H.**, Ro, S., Vukmirovic, Z., & Wang, S. (2005, April). *A comparison of different designs for calibrating mixed format items in a stand-alone field test*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.
58. Vukmirovic, Z., **Jiao, H.**, & Turhan, A. (2005, April). *A comparison among different methods used to establish a common metric for field-test items*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.
59. Wang, S., **Jiao, H.**, & Severance, N. (2005, April). *An investigation of growth patterns of student achievement using unidimensional and multidimensional vertical scale methods*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Montreal, Canada.
60. Wang, S., **Jiao, H.**, & Brooks, T. (2005, April). *Construct equivalence between customized and original standardized reading comprehension tests*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.
61. **Jiao, H.**, & Lau, A. (2004, August). *Mixing linear and adaptive algorithms in computerized classification test*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
62. **Jiao, H.**, & Wang, S., & Vukmirovic, Z. (2004, August). *The effects of random sampling on the Mantel Statistics*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
63. **Jiao, H.**, & Wang, S., & Vukmirovic, Z. (2004, August). *Consistency of using different matching variables in detecting Differential Item Functioning*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
64. **Jiao, H.**, Wang, S., Lau, A. C., & Zhang, H. (2004, August). *Comparison of computerized adaptive test and computerized classification test in making dichotomous classification decisions*. Paper presented at the 28th International Congress of Psychology. Beijing, China.

65. **Jiao, H.**, Wang, S., & Lau, A. C. (2004, August). *An investigation of two combination procedures of SPRT for three-category classification decisions in computerized classification test*. Paper presented at the Annual Meeting of American Educational Research Association. San Diego, CA.
66. Lau, A. C., **Jiao, H.**, & Lam, W. (2004, April). *A simulation study to investigate the properties of pattern scoring and number-correct scoring using IRT model*. Paper presented at the Annual Meeting of American Educational Research Association, San Diego, CA.
67. Stephenson, A., & **Jiao, H.** (2004, April). *Comparison of native and non-native speakers of English on an English language proficiency test*. Paper presented at the Annual Meeting of American Educational Research Association, San Diego, CA.
68. **Jiao, H.**, & Kamata, A. (2003, April). *Model comparisons in the presence of local item dependence*. Paper presented at the Annual Meeting of American Educational Research Association, Chicago, IL.
69. **Jiao, H.**, & Lau, A. C. (2003, April). *The effects of model misfit in computerized classification test*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
70. Stephenson, A., & **Jiao, H.** (2003, April). *Classification of students' English proficiency with Discriminant Analysis*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Unrefereed National and International Conference Proceedings

71. **Jiao, H.** & Macready, G. (2013). *Mixture hybrid Item Response Theory modeling with different functional forms across latent classes*. Paper to be presented at the Annual Meeting of the Psychometric Society. Arnhem, Netherland.
72. **Jiao, H.**, Macready, G., & Johnson, M. (2012). *A four-parameter mixture Item Response Theory model*. Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.
73. van Wie*, A., **Jiao, H.**, & Luo*, Y. (2012). *A four-level IRT for simultaneous evaluation of student, teacher, and school effects*. Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.
74. Luo*, Y., **Jiao, H.**, & van Wie*, A. (2012). *A four-level three-parameter IRT*. Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.
75. Chen*, Y. F., & **Jiao, H.** (2012). *Does model misspecification lead to spurious latent classes in the population?* Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.

76. Chen*, Y. F., & **Jiao, H.** (2012). *Detection of aberrant item respondents based on the mixture Rasch model*. Paper presented at the 18th International Objective Measurement Workshop. Vancouver, Canada.
77. Zhu*, X., & **Jiao, H.** (2012). The testlet effect in vertical scaling. Paper presented at the 18th International Objective Measurement Workshop. Vancouver, Canada.
78. **Jiao, H.**, Macready, G., Zhu, J., & An*, W. (2011). *A modified three-parameter logistic item response theory with varying upper asymptote effects*. Paper presented at the Annual Meeting of the Psychometric Society. Hong Kong, China.
79. **Jiao, H.**, Kamata, A., & Binici, S. (2010). *The effects of ignoring item and person clustering on ability estimation and proficiency classification across years*. Paper presented at the annual conference of the Psychometric Society. Athens, GA.
80. Li*, Y., **Jiao, H.**, & Lissitz, B. (2010). *Construct equivalence of a state high-school graduation test with and without accommodations*. Paper presented at the meeting of the International Commission of Testing, Hong Kong, China.
81. Liu*, M. & **Jiao, H.** (2010). *Comparing estimation methods for mixture Rasch model*. Paper presented at the 15th International Objective Measurement Workshop meeting, Denver, CO.
82. Choi*, Y., & **Jiao, H.** (2010). *The effects of model misspecification on the identification of latent classes in the mixture Item Response Theory Models*. Paper presented at the annual conference of the Psychometric Society. Athens, GA.
83. Cho*, Y., von Davier, M., **Jiao, H.**, & Macready, G. (2010). *A comparison of classification consistency obtained with unidimensional IRT models and mixture generalized diagnostic models*. Paper presented at the annual conference of the Psychometric Society. Athens, GA.
84. **Jiao, H.**, Wang, S., & Vukmirovic, Z. (2006, April). *Investigation of local item dependence in scenario-based science assessment*. Paper presented at the 13th International Objective Measurement Workshop, San Francisco, CA.
85. Wang, S., **Jiao, H.**, Young, M., & Jin, Y. (2006, April). *The effects of linking designs in vertical scaling on the growth patterns of student achievement*. Paper presented at the 13th International Objective Measurement Workshop, San Francisco, CA.
86. Wang, S., **Jiao, H.**, & Young, M. (2006, April). *The robustness of unidimensional Rasch Measurement Model to multidimensional data in vertical scaling*. Paper presented at the 13th International Objective Measurement Workshop, San Francisco, CA.

G. FELLOWSHIPS, PRIZES, AND AWARDS

2011 The International Initiative Fellows Program at the College of Education, University of Maryland, College Park, MD.

- 2010 The American Educational Research Association Research Grant sponsored by the National Science Foundation
- 2009 The GATE Fellows Program (Teaching Innovation Award) at the College of Education, University of Maryland, College Park, MD.
- 2008 The SPARC: Support Program for Advancing Research and Collaboration Award, College of Education, University of Maryland, College Park, MD.
- 2008 The General Research Board (GRB) Summer Award, University of Maryland, College Park, MD.
- 2005 The Revere Award for Customer Focus, Harcourt Assessment, Inc., San Antonio, TX
- 2003 The Spaan Fellowship, Funded research in Second or Foreign Language Testing, University of Michigan, Ann Arbor , MI.
- 2002 The Lenke Psychometric Fellowship, Harcourt Educational Measurement, San Antonio, TX.
- 2002 The Academic Conference Travel Award, Florida State University, Tallahassee, FL.
- 1998-2001 University Fellowship, Florida State University, Tallahassee, FL.
- 1999-2000 Graduate Assistantship, Florida State University, Tallahassee, FL.
- 1999 Teaching Assistantship, Florida State University, Tallahassee, FL.
- 1996 Liu Yonglin Excellent Teaching Prize, Shanghai Jiao Tong University, Shanghai, China.
- 1996 Star Teacher, Shanghai Jiao Tong University, Shanghai, China.
- 1993 Teaching Excellence Award, Shanghai Jiao Tong University, Shanghai, China.
- 1992 The Excellent Graduate Award of Shanghai City, Shanghai Municipality, China.

H. EDITORSHIPS, EDITORIAL BOARDS, AND REVIEWING ACTIVITIES FOR JOURNALS AND OTHER LEARNING PUBLICATIONS

Editorial Boards

- 10/2010 –10/2011 Editorial Board for the *American Educational Research Journal* - Teaching, Learning, and Human Development section.

6/2012 –6/2013 Editorial Board for the *Psychology*.

Reviewer for Professional Journals

Journal of Educational and Behavioral Statistics
Applied Psychological Measurement
Journal of Educational Measurement
Educational and Psychological Measurement
Organizational Research Methods
Journal of American Educational Research
Frontiers in Quantitative Psychology and Measurement
Writing Systems Research
Alberta Journal of Educational Research
International Journal of Quantitative Research in Education

Reviewer for Book Chapters

One chapter in the book, *Improving Large-Scale Education Assessment: Theory, Issues, and Practice* edited by Marielle Simon, Kadriye Ercikan, and Michel Rousseau

Three chapters in the book, *The Companion to Language Assessments* edited by Antony J. Kunnan.

Reviewer for National and International Conferences

American Educational Research Association (AERA)
Division D, Special Interest Group for Rasch Measurement Model, Special Interest Group for Hierarchical Linear Modeling, Special Interest Group for Research on the Inclusions of Students with Disabilities and Limited English Proficient Students in Large-scale Assessments, Special Interest Group for Licensure and Certification Tests.

National Council on Measurement in Education (NCME)
Florida Educational Research Association (FERA)
Southwest Educational Research Association

Other Reviewing Activities

Grant Proposal Reviewer for National Science Foundation (NSF)
Reviewer for the Chinese Government Award for Outstanding Self-financed Students Abroad

Membership in Professional Organizations

National Council on Measurement in Education (NCME)
American Educational Research Association (AERA)
Psychometric Society

3. TEACHING, MENTORING, AND ADVISING

A. COURSES TAUGHT IN LAST FIVE YEARS

Graduate Courses

| <u>Year(s)</u> | <u>Course Title</u> |
|----------------|--|
| Fall 2013 | Applied Measurement: Issues and Practices |
| Spring 2013 | Modern Measurement Theory (IRT) |
| 2011 | Finite Mixture Models in Statistics and Measurement (3 lectures) |
| 2009-2011 | Psychometrics in large-scale assessments |
| 2008-2012 | Quantitative Research Methods II (ANOVA) |
| 2007-2012 | Quantitative Research Methods I (Descriptive and inferential statistics) |

B. COURSES OR CURRICULUM DEVELOPMENT

| <u>Year(s)</u> | <u>Course Title</u> |
|----------------|--|
| 2013 | Modern Measurement Theory-Item Response Theory (New course for spring 2013) |
| 2013 | Applied Measurement: Issues and Practices (New course for fall 2013) |
| 2011 | Finite Mixture Models in Statistics and Measurement (Developed three new lectures in the new course in fall 2011) |
| 2009-2011 | Psychometrics in large-scale assessments (New course in fall 2009) |
| 2008-2012 | Quantitative Research Methods II (revision in fall 2009) |
| 2007-2012 | Quantitative Research Methods I (revision in fall 2009) |

D. TEACHING AWARDS AND OTHER SPECIAL RECOGNITION

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|-----------|---|
| 2009-2010 | The GATE Fellows Program (Teaching Innovation Award) at the College of Education, University of Maryland, College Park, MD. |
| 1996 | Liu Yonglin Excellent Teaching Prize, Shanghai Jiao Tong University, Shanghai, China. |
| 1996 | Star Teacher, Shanghai Jiao Tong University, Shanghai, China. |
| 1993 | Teaching Excellence Award, Shanghai Jiao Tong University, Shanghai, China. |

F. ADVISING (RESEARCH DIRECTIONS)

Master

1. Dandan Liao (**advisor**), EDMS, University of Maryland, expected to graduate in spring 2015.
2. Tongyun Li (**co-advisor**), EDMS, University of Maryland, graduated fall 2012.
3. Huili Liu (**advisor**), EDMS, University of Maryland, graduated spring 2012.
4. Anton Syromyatin (**advisor**), thesis option, EDMS, University of Maryland, graduated fall 2011.

Doctoral

1. Ru Lu (**chair**), EDMS, University of Maryland, graduated in fall 2010. Working at Educational Testing Service.
2. Ying-Fang Chen (**chair**), EDMS, University of Maryland, graduate in fall 2013.
3. Yong Luo (**chair**), EDMS, University of Maryland, graduate in fall 2013.
4. Chao Xie (**chair**), EDMS, University of Maryland, expected to graduate in spring 2014.
5. Tongyun Li (**chair**), EDMS, University of Maryland, expected to graduate in spring 2015.
6. Yuan Zhang (**advisor**), EDMS, University of Maryland, expected to graduate in spring 2014.
7. Chengbin Yin (**advisor**), EDMS, University of Maryland, expected to graduate in spring 2015.
8. Evan Olson (**advisor**), EDMS, University of Maryland, expected to graduate in spring 2015.
9. Reem Albassam (**committee member**), Dr. David Lei (chair), EDMS, University of Maryland, expected to graduate in spring 2015.
10. Chin-Fang Weng (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, expected to graduate in spring 2014.
11. Xiaoshu Zhu (**committee member**), Dr. Robert Lissitz (chair), EDMS, University of Maryland, current doctoral candidate, *defended* in spring 2013.
12. Eunyung Chong (**committee member**), Dr. John E. Newhagen (chair), College of Journalism, University of Maryland, *defended* in spring 2012.
13. Ebony Terrell Shockley (**committee member**), Dr. Victoria-Maria MacDonald (chair), CAPS Department, University of Maryland, *defended* in spring 2012.
14. Daisy Rustein (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, current doctoral candidate, *graduated* in winter 2011.
15. Younyoung Choi (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in fall 2011.
16. Jui-Chen Hsu (**committee member**), Dr. Jeff Harring & Gregory Hancock (chair), EDMS, University of Maryland, current doctoral candidate, *graduated* in fall 2011.
17. Nidhi Kohli (**committee member**), Dr. Jeff Harring & Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2011.
18. Min Liu (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2011.
19. Jessica Mislevy (**committee member**), Dr. Andre Rupp & Jeff Harring (chair), EDMS, University of Maryland, *graduated* in spring 2011.
20. Xiaodong Hou (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2011.
21. Ying Li (**committee member**), Dr. Robert Lissitz (chair), EDMS, University of Maryland, *graduated* in spring 2011.

22. Joyce Wang (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in spring 2010.
23. Marc Kroopnick (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in spring 2010.
24. Yunyun Dai (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in winter 2009.
25. Jennifer Hamilton (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2009.
26. Fei-Fei Li (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in spring 2009.
27. Donyang Li (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in spring 2009.
28. Yi Cao (**committee member**), Dr. Robert Lissitz (chair), EDMS, University of Maryland, *graduated* in spring 2008.

4. SERVICE

A. PROFESSIONAL

Work in National Committees

- | | |
|-------------|---|
| 2013 – 2015 | Committee member , the NCME annual awards committee. |
| 2012 – 2014 | Committee member , the Program Committee, the Psychometric Society. |
| 2012 – 2015 | Committee member , the Early Career Award committee, AERA-Division D. |
| 2011 – 2012 | Committee member , the Significant Contribution for Educational Measurement and Research Methodology committee, AERA-Division D. |
| 2010 – 2011 | Chair , the Significant Contribution for Educational Measurement and Research Methodology committee, AERA-Division D. |
| 2009 – 2010 | Co-chair , the Significant Contribution for Educational Measurement and Research Methodology committee, AERA-Division D. |
| 2008 – 2011 | Session Chair for the annual meeting of the National Council on Measurement in Education. |

Review Work for National Funding Agencies and Conferences

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| 2011 | Grant reviewer for the Methodology, Measurement, and Statistics program sponsored by the National Science Foundation. |
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2004 – **Proposal reviewer**, annual meetings for the National Council on Measurement in Education; American Educational Research Association Division D, Special Interest Group for Rasch Measurement Model, Special Interest Group for Hierarchical Linear Modeling, Special Interest Group for Research on the Inclusions of Students with Disabilities and Limited English Proficient Students in Large-scale Assessments, Special Interest Group for Licensure and Certification Tests.

B. CAMPUS SERVICE

Department Service

2013 – 2014 **Chair**, the Graduate Student Admission Committee

2013 –2014 **Member**, the Search Committee for Assistant/Associate Professor in the program of Measurement, Statistics and Evaluation

2013 –2014 **Member**, the Search Committee for Assistant Professor in the program of Educational Psychology and Developmental Science

2012 – 2013 **Chair**, the Examination Committee for Master Comprehensive Exam, Doctoral Preliminary Exam, and Doctoral Comprehensive Exam

2012 – 2013 **Organizer**, the Measurement and Statistics Monday Symposium

2011 –2012 **Member**, the Search Committee for Chair of Department of Human Development and Quantitative Methodology.

2010 –2011 **Member**, the Search Committee for Assistant/Associate Professor in the Department of Measurement, Statistics and Evaluation

2010 – 2012 **Member**, the Examination Committee for Master Comprehensive Exam, Doctoral Preliminary Exam, and Doctoral Comprehensive Exam

2009 – 2010 **Chair**, the Graduate Student Admission Committee

2007 – 2009 **Member**, the Graduate Student Admission Committee

College Service

2008 – 2011 **Member**, the International Committee, College of Education

2009 **Member**, Awards Committee Member, College of Education

2009 – 2010 **Member**, Steering Committee of the College Senate

2008 – 2010 **Senator** of College of Education

University Service

2011 **Member**, Search Committee for Assistant Professor in Department of Psychology.

2010 **Member**, the First Year Review Committee for Man Huang, College of Information Studies.