

Curriculum Vitae

Prof. Dr. Ir. Jean-Paul Fox

Faculty of Behavioural, Management and Social Sciences. Research Institute for Social Sciences and Technology

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<http://www.Jean-PaulFox.com>

[www.researchgate.net/profile/Jean Paul Fox](http://www.researchgate.net/profile/Jean_Paul_Fox)

Professional record

2013 – present *Adjunct Professor*, Department of Research Methodology, Measurement and Data Analysis. Faculty of Behavioural, Management and Social Sciences, University of Twente.

2014 – present Psychometrician, Cito (Psychometrisch Onderzoek en Kenniscentrum), Arnhem, The Netherlands.

2007 – 2013 *Associate Professor*, Bayesian Psychometric Response Modelling, Faculty of Behavioural Sciences, University of Twente. (VIDI personal grant)

2005 – 2007 *Assistant Professor*, Faculty of Behavioural Sciences. University of Twente.

2001 – 2005 *Post Doc*, (VENI personal grant)

1997 – 2001 *PhD student* at the University of Twente, Netherlands.

1996 – 1997 *Statistician*. I&O Research, The Netherlands.

Academic Education

2001 *Doctorate* University of Twente, Enschede, The Netherlands

Title Thesis: “Multilevel IRT: A Bayesian perspective on estimating parameters and testing statistical hypotheses” supervisor Prof. Dr. C.A.W. Glas and Prof. Dr. W.J. van der Linden.

1996 *Master’s* (‘Doctoraal’) University of Twente, Enschede, The Netherlands

Title Theses: “Regularisation through prior distributions” supervisor Prof. Dr. Ir. W. Albers

Research grants

Fox contributed to projects granted by the Dutch (NWO, innovational research incentives scheme) as well as European (IFPI) and international (NIA) funding agencies. (IFPI: *Causes and Consequences of Digital Music Piracy*, OECD PISA, Cycle 2009, Core B: background questionnaires, NIA: *Improving cognitive outcome precision & responsiveness with modern psychometrics*)

- 2015 Measurement invariance testing using Bayes factor. LSAC.
- 2014 Bayesian model testing in item response theory: Bayes factors (CTB/McGraw-Hill), Euro 61,077 (\$84,830).
- 2013 Response time modelling and its applications (LSAC). Euro 165,308 (\$228,059).
- 2007 NWO Vidi grant (452-07-003). Bayesian methodology for large-scale comparative research. Euro 599,057.
- 2004 NWO VENI grant (451-04-032). Multilevel item response theory models. Euro 200.000

(Co-)Supervision of PhD students

- Sukaesi Marianti (2013 – 2016, UT). *Contributions to the joint modeling of responses and response times.*
- Jose R.S. Santos (2013 – 2016, University of Campinas, Brazil). *Skew IRT models for longitudinal data with multiple groups via Copula.*
- Marieke van Geel (2011 – 2015, UT). *The effects of a training data-based decision making for primary school teams.*
- Trynke Keuning (2011 – 2015, UT). *The effects of a training in data-based decision making for primary school teams at schools with students at risk.*
- Rosalie Gorter (2010 – 2015, VUMC). *Longitudinal data-analysis using IRT techniques.*
- Josine Verhagen (2008 – 2012). *Modeling structural and measurement heterogeneity in large-scale survey research.*
- Marianna Avetisyan (2008 - 2012). *Response bias and incomplete data in large-scale survey research.*
- Caroline Timmers (2007-2012). *Computer-based formative assessments using feedback for learning.*
- Rinke H. Klein Entink (2005 - 2009). *Simultaneous modeling of item response and time response data with background variables.*
- Joris Mulder (UU) (2006 - 2010). *Applying Bayesian methodology to inequality constrained multivariate linear models.*
- Jonald Pimentel (2001 - 2005). *Item response theory modeling with nonignorable missing data.*
- Irene Hendrawan (2000 - 2004). *The effect of item response theory model violations on practical test applications.*

Educational Committees

- 2015-present *Chair Examination Committee*; Faculty of Behavioural Management and Social Sciences. (<https://www.utwente.nl/bms/examboard/composition/>).
- 2015-present *Chair Examination Subcommittee*; Behavioural Sciences.
- 2012-present Member, program committee, Research Master Methodology and Statistics for the Behavioural, Biomedical and Social Sciences (UT).

Miscellaneous

- 2013–present Member ethics committee faculty Behavioral Sciences.
- 2012–present UT-Program coordinator of the Research Master Methodology and Statistics for the Behavioural, Biomedical and Social Sciences.
- 2006–present Co-organizer Meetings of SWS-VVS (Netherlands Statistical Society, Social Sciences Division).
- 2010-present *Associate Editor* British Journal of Mathematical and Statistical Psychology.
- 2010-present *Associate Editor* Journal of Educational and Behavioural Statistics.
- 2012-present Member of *De Jonge Akademie of the University of Twente*, (JA@UT, www.utwente.nl/jongeakademie).

Co-organizer Fall Meetings of SWS-VVS (Netherlands Statistical Society, Social Sciences Division).
Co-organizer Spring Meeting of SWS-VVS (Netherlands Statistical Society, Social Sciences Division).

Board of Psychometric Associations

- 2006 – present Member of the Board of the social sciences section of the Netherlands Society for Statistics and Operations.
- 2008 – present Board of the Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS).

Education activities

Teaching experience at undergraduate and graduate level (Research Master). Courses in mathematics, statistics, and educational assessment. Postdoctoral courses developed and taught (with co-workers):

- IOPS (Interuniversity Graduate School of Psychometrics and Sociometrics). *Analysis of Measurement Instruments: Introduction to classical test theory, item response models and multilevel item response models*. (October, 2010)
- 39th GESIS Spring Seminar (Cologne). *Bayesian Item Response Modeling*. (February, 2010).
- A tailor-made training (NFP/ZAF/05/38) supported by the NUFFIC entitled “Evaluating and Changing Education Systems” for Human Science Research Council (HSRC), South Africa (2008).
- IOPS (Interuniversity Graduate School of Psychometrics and Sociometrics). *Advanced Computation in IRT*. (November, 2007).
- ICO (Interuniversity Centre for Educational Research). *Item Response Theory*. (March, 2007).
- IOPS (Interuniversity Graduate School of Psychometrics and Sociometrics). *Sampling-based Statistical Inference*. (April, 2003).
- IOPS (Interuniversity Graduate School of Psychometrics and Sociometrics). *Multilevel Analysis*. (March, 2003).
- ICO (Interuniversity Centre for Educational Research). *Multilevel analysis*. (March, 2001, 2002).
- ICO (Interuniversity Centre for Educational Research). *Item Response Theory*. (February, 1999).

Scholarships and Prizes

- Personal grant, VIDI, 2007-2012. (600 k€). An Innovational Research Incentives Scheme (Dutch: Vernieuwingsimpuls) from the Netherlands Organisation for Scientific Research (NWO).
- Personal grant, VENI, 2004-2007. (200 k€). An Innovational Research Incentives Scheme (Dutch: Vernieuwingsimpuls) from the Netherlands Organisation for Scientific Research (NWO).
- International Psychometric Society Dissertation Award, 2001.

The interest in the Fox's research work is increasing world-wide and around 40% of the web-visitors come from the United States. His website with research output (including software) received 750 to 1350 monthly visits last year. The statistics for the September 2015:

Usage Statistics for jean-paulfox.com

Summary Period: September 2015
Generated 01-Oct-2015 00:24 UTC

[\[Daily Statistics\]](#) [\[Hourly Statistics\]](#) [\[URLs\]](#) [\[Entry\]](#) [\[Exit\]](#) [\[Sites\]](#) [\[Referrers\]](#) [\[Search\]](#) [\[Agents\]](#) [\[Locations\]](#)

Monthly Statistics for September 2015	
Total Hits	11174
Total Files	8645
Total Pages	3864
Total Visits	1819
Total kB Files	1709626
Total kB In	0
Total kB Out	0

Early Achievement-Track-Record

First author of journal publications. Most influential publications are Fox and Glas (2001) with 315 and Fox (2010) with 184 citations.

Papers are available at www.Jean-PaulFox.com (Main menu item 'Publications').

1. Keuning, T., van Geel, M., Visscher, A., **Fox, J.-P.**, and Molenaar, N. (in press). The transformation of schools' social networks during a Data-Based Decision-Making Reform. *Teachers College Record*.
2. Verhagen, A.J., Levy, R., Millsap, R.E., and **Fox, J.-P.** (2015). Evaluating evidence for invariant items: A Bayes factor applied to testing measurement invariance in IRT models. *Journal of Mathematical Psychology*.
3. Azevedo, C.L.N., **Fox, J.-P.** and Andrade, D.F. (2015). *International Journal of Quantitative Research in Education*, 2, 213-243.
4. Camilli, G., and **Fox, J.-P.** (2015). An aggregate IRT procedure for exploratory factor analysis. *Journal of Educational and Behavioral Statistics*, 40 (4). DOI:10.3102/1076998615589185.
5. Gorter, R., **Fox, J.-P.**, and Twisk, J.W.R. (2015). Why item response theory should be used for longitudinal questionnaire data analysis in medical research. *BMC Medical Research Methodology*, 15(1):55. DOI:10.1186/s12874-015-0050-x.
6. Van den Hout, A., **Fox, J.-P.**, and Muniz-Terrera, G. (2015). Longitudinal mixed-effects models for latent cognitive function. *Statistical Modelling*, 15(4), 366-387. DOI:10.1177/1471082X14555607.
7. De Jong, M.G., **J.-P. Fox**, and Steenkamp, J.E.B.M. (2015). Quantifying under- and over-reporting in surveys through a dual questioning-technique design. *Journal of Marketing Research*.
8. Trompetter, H.R., Bohlmeijer, E.T., **Fox, J.-P.**, Schreurs, K.M.G. (2015). Psychological flexibility and catastrophizing as associated change mechanisms during online Acceptance & Commitment Therapy for

chronic pain. *Behaviour Research and Therapy*, 74:50-59. DOI:10.1016/j.brat.2015.09.001.

9. Gosselt, J., van Hoof, J., Gent, B., and **Fox, J.-P.** (2015). Violent frames. Analyzing Internet Movie Database reviewers' text descriptions of media violence and gender differences from 39 years of U.S. action, thriller, crime, and adventure movies. *International Journal of Communication*, 9, 547-567. (doi: 1932–8036/20150005).
10. Azevedo, C.L.N., **Fox, J.-P.**, and Andrade, D.F. (2015). Bayesian longitudinal item response modeling with restricted covariance pattern structures. *Statistics and Computing*. (doi 10.1007/s11222-014-9518-5).
11. **Fox, J.-P.**, M. Marsman, J. Mulder, and J.A. Verhagen (2015). Complex latent variable modeling in educational assessment. *Communications in Statistics – Simulation and Computation*. (doi:10.1080/03610918.2014.939518)
12. Marianti, S., **Fox, J.-P.**, Avetisyan, M., Veldkamp, B.P., and Tijmstra, J. (2014). *Journal of Educational and Behavioural Statistics*, 39, 426-451.
13. **Fox, J.-P.**, Klein Entink, R.H., Timmers, C. (2014). The joint multivariate modeling of multiple mixed response sources: Relating student performances with feedback behavior. *Multivariate Behavioral Research*, 49, 54-66, doi:10.1080/00273171.2013.843441.
14. **Fox, J.-P.**, Klein Entink, R.H., Avetisyan, M. (2014). Compensatory and noncompensatory multidimensional randomized item response models. *British Journal of Mathematical and Statistical Psychology*, 67, 133-152.
15. **Fox, J.-P.**, Avetisyan, M., van der Palen, J. (2013). Mixture randomized item-response modeling: A smoking behavior validation study. *Statistics in Medicine*, 32(27). (doi: 10.1002/sim.5859).
16. **Fox, J.-P.** (2013). Multivariate zero-inflated modeling with latent predictors: Modeling feedback behavior. *Computational Statistics and Data Analysis*, 68, 361–374.
17. Verhagen, J.A. and **Fox, J.-P.** (2013). Longitudinal measurement in health-related surveys. A Bayesian joint growth model for multivariate ordinal responses. *Statistics in Medicine*, 32, 2988-3005.
18. Fledderus, M., Bohlmeijer, E.T., **Fox, J.-P.**, Schreurs, K.M.G., and Spinhoven, P. (2013). The role of psychological flexibility in a self-help acceptance and commitment therapy intervention for psychological distress in a randomized controlled trial. *Behaviour Research and Therapy*, 51, 142-151.
19. Mulder, J. and **Fox J.-P.** (2013). Bayesian tests on components of the compound symmetry covariance matrix. *Statistics and Computing*, 23, 109-122.
20. Verhagen, J. and **Fox, J.-P.** (2013). Bayesian Tests of Measurement Invariance. *British Journal of Mathematical and Statistical Psychology*, 66, 383-401.

21. Avetisyan, M. and **Fox, J.-P.** (2012). The Dirichet-Multinomial model for multivariate randomized Response data and small samples. *Psicologica: International Journal of Methodology and Experimental Psychology*, v33 n2, 362-390.
22. Azevedo, Caio L.N., Andrade, Dalton F. and **Fox, J.-P.** (2012). A Bayesian generalized multiple group IRT model with model-fit assessment tools. *Computational Statistics and Data Analysis*, 56, 4399-4412.
23. Van den Hout, A., **Fox, J.-P.**, and Klein Entink, R.H. (2011). Bayesian inference for an illness-death model for stroke with cognition as a latent time-dependent risk factor. *Statistical Methods in Medical Research*. (online, doi: 10.1177/0962280211426359).
24. Klein Entink, R.H. **Fox, J.-P.**, and van den Hout, A. (2011). A mixture model for the joint analysis of latent developmental trajectories and survival. *Statistics in Medicine*, 30, 2310-2325.
25. De Jong, M.G., Pieters, F.G.M., **Fox, J.-P.** (2010). Reducing social desirability bias through item randomized response: An application to measure underreported desires. *Journal of Marketing Research*, 47, 14-27.
26. Van der Linden, W.J., Klein Entink, R.H., **Fox, J.-P.** (2010). IRT parameter estimation with response times as collateral information. *Applied Psychological Measurement*, 34, 327-347.
27. Klein Entink, R.H., van der Linden, W.J., **Fox, J.-P.** (2009). A Box-Cox normal model for response times. *British Journal of Mathematical and Statistical Psychology*, 62, 621-640.
28. Klein Entink, R.H., Kuhn, J.-T., Hornke, L.F., and **Fox, J.-P.** (2009). Evaluating cognitive theory: A joint modeling approach using responses and response times. *Psychological Methods*, 14, 54-75.
29. Klein Entink, R.H., **Fox, J.-P.**, van der Linden, W.J. (2009). A multivariate multilevel approach to the modeling of accuracy and speed of test takers. *Psychometrika*, 74, 21-48.
30. **Fox, J.-P.** (2008). Bayesian item response models for complex survey data. Proceedings of the 23rd international workshop on Statistical Modelling. Eilers, P. (Ed.), 19-26.
31. **Fox, J.-P.**, and Meijer, R.R. (2008). Using IRT to obtain individual information from randomized response data: An application using cheating data. *Applied Psychological Measurement*, 32, 595-610.
32. **Fox, J.-P.**, and Wyrick, C.H. (2008). A mixed effects randomized item response model. *Journal of Educational and Behavioral Statistics*, 33, 389-415.
33. **Fox, J.-P.** (2008). Beta-Binomial ANOVA for multivariate randomized response data. *British Journal of Mathematical and Statistical Psychology*, 61, 453-470.
34. De Jong, M.G., Steenkamp, J.B.E.M., **Fox, J.-P.**, and Baumgartner, H. (2008). Using item response theory to measure extreme response style in marketing research: A global investigation. *Journal of Marketing Research*, 45, 104-115.
35. De Jong, M.G., Steenkamp, J.B.E.M., and **Fox, J.-P.** (2007). Relaxing cross-national measurement invariance using a hierarchical IRT model. *Journal of Consumer Research*, 34, 260-278 .
36. **Fox, J.-P.**, Klein Entink, R.H., van der Linden, W.J. (2007). Modeling of responses and response times with the package cirt. *Journal of Statistical Software*, 20, issue 7.

37. **Fox, J.-P.** (2007). Multilevel IRT modeling in practice. *Journal of Statistical Software*, 20, issue 5.
38. Klein Entink, R.H., **Fox, J.-P.**, Betlem, B.H.L., Roffel, B. (2007). Hierarchical process modeling: Describing within- and between-run variation. *Journal of Process Control*, 17, 349-361.
39. **Fox, J.-P.**, Pimentel, J.L., Glas, C.A.W. (2006). Fixed effects IRT model. *Behaviormetrika*, 33, 27-42.
40. **Fox, J.-P.**, & Glas, C.A.W. (2005). Bayesian modification indices for IRT models. *Statistica Neerlandica*, 59, 95-106.
41. **Fox, J.-P.** (2005). Randomized item response theory models. *Journal of Educational and Behavioral Statistics*, 30, 189-212.
42. **Fox, J.-P.** (2005). Multilevel IRT using dichotomous and polytomous items. *British Journal of Mathematical and Statistical Psychology*, 58, 145-172.
43. **Fox, J.-P.** (2004). Applications of multilevel IRT modeling. *School Effectiveness and School Improvement*, 15, 261-280.
44. **Fox, J.-P.** (2004). Modeling response error in school effectiveness research. *Statistica Neerlandica*, 58, 138-160.
45. **Fox, J.-P.** (2003). Stochastic EM for Estimating the Parameters of a Multilevel IRT Model. *British Journal of Mathematical and Statistical Psychology*, 56, 65-81.
46. **Fox, J.-P.**, & Glas, C.A.W. (2003). Bayesian modeling of measurement error in predictor variables using item response theory. *Psychometrika* 68, 169-191.

Developed software packages (related to Bayesian item response modelling)

(see also www.Jean-PaulFox.com)

1. Fox, J.-P., Klein Entink, R.H., van der Linden, W.J. (2007). Modeling of responses and response times with the package *cirt*. *Journal of Statistical Software*, 20, issue 7. (13)
2. Fox, J.-P. (2007). Multilevel IRT modeling in practice. *Journal of Statistical Software*, 20, issue 5. (4)
3. MIXIS (2011). Klein Entink, R.H. and Fox, J.-P. Bayesian mixture growth modelling with latent covariates using item response theory.

Monograph.

Fox, J.-P. (2010). *Bayesian Item Response Modeling: Theory and Applications*. New York: Springer. ISBN 1441907416. (184 citations, Google Scholar)

Thesis

Fox, J.-P. (2001). *Multilevel IRT: A Bayesian perspective on estimating parameters and testing statistical hypotheses*. University of Twente, Enschede, Netherlands. (2001 *Psychometric Society Dissertation Award*).

Book Contributions:

- 2015 Van der Linden, W.J. and **Fox, J.-P.** Joint hierarchical modeling of responses and response times. In *Handbook of Modern Item Response Theory*, W.J van der Linden (Ed.), Vol 1, Chapter 29, Chapman and Hall/CRC Press.
- 2015 **Fox, J.-P.** Bayesian randomized item response theory models for sensitive measurement. In *Handbook of Modern Item Response Theory*, W.J van der Linden (Ed.), Vol 1, Chapter 28, Chapman and Hall/CRC Press.

- 2015 **Fox, J.-P.** and Glas C.A.W. Multilevel response models with covariates and multiple groups. In Handbook of Modern Item Response Theory, W.J van der Linden (Ed.), Vol. 1, Chapter 24, Chapman and Hall/CRC Press.
- 2015 **Fox, J.-P.** van den Berg, S.M., and Veldkamp, B.P. (to be published). Bayesian psychometric methods. In Handbook of Psychometric Testing, P. Irwing, T. Booth and D. Hughes. Wiley-Blackwell.
- 2010 **Fox, J.-P.**, and A. J. Verhagen (2010). Random item effects modeling for cross-national survey data. In E. Davidov & P. Schmidt, and J. Billiet (Eds.), *Cross-cultural Analysis: Methods and Applications* (pp 461-482), London: Routedledge Academic. ISBN 1848728220.
- 2008 **Fox, J.-P.** (2008). Bayesian item response models for complex survey data. In Eilers, P. (Ed.), *Proceedings of the 23rd international workshop on Statistical Modelling*. pp. 19-26.
- 2004 **Fox, J.-P.** (2004). Multilevel IRT Model Assessment. In van der Ark, Croon, Sijtsma (Eds.) *New Developments in Categorical Data Analysis for the Social and Behavioral Sciences* (p. 227-252), London: Lawrence Erlbaum Associates, Inc. ISBN 0-8058-4278-6
- 2002 **Fox, J.-P.** & Glas, C.A.W. (2002). Modeling measurement error in a structural multilevel model. In G.A. Marcoulides & I. Moustaki (Eds.), *Latent Variable and Latent Structure Models* (pp. 245-269), London: Lawrence Erlbaum Associates, Publishers. ISBN 978-0805840469

Latest talks (including invited and key-note talks).

For a more complete overview: www.Jean-PaulFox.com (Main menu item 'Presentations').

- Does Time Pressure Induce Tunnel Vision? An examination with the Eriksen Flanker task. *International Conference on Applied Physics, Simulation and Computers (APSAC 2015)*. Vienna, Austria.
- Bayesian Model Testing in IRT. CTB-McGraw/Hill, R&D Symposium. Monterey, CA, 11 September, 2014.
- Exploring feedback behavior: A multivariate multilevel modeling approach. 9th International Multilevel Conference, Utrecht, The Netherlands, March 27-28, 2013.
- *Advances in Bayesian Item Response Modeling* (Joint modeling of feedback use and time data). NCME, 16 April 2012, Vancouver (Invited session Advances in Psychometrics).
- *Random Item Effects Modeling: Applications*. Ph.D School in Psychology, Università di Milano - Bicocca. Milan, Italy. April 29, 2011. (Invited)
- *Random Item Effects Modeling: Theory*. Ph.D School in Statistics, Università di Milano - Bicocca. Milan, Italy. April 28, 2011. (Invited)
- *Joint Modeling of Longitudinal Item Response Data and Survival*. Escola de Modelos De Regressao. March 13-16, 2011. Fortaleza, Brazil. (Keynote Address)
- *Developments in Bayesian Item Response Modeling*. The 75th Meeting of the Psychometric Society. July 7 - July 9, 2010. Athens, Georgia, USA. (Invited).
- *The Joint Modeling of Individual Cognitive Impairment and Survival Data*. MTO Research Colloquium. June, 9, 2010. Tilburg University. (Invited).
- *MLIRT Modeling of Complex Survey Data*. 1st Brazilian Congress on Item Response Theory. Florianópolis, Brazil. December 9-11, 2009. (Keynote Address)
- *Random Item Effects Modeling in Cross-National Survey Research*. 1st Brazilian Congress on Item Response Theory. Florianópolis, Brazil. December 9-11, 2009. (Keynote Address)
- *Item Response Modeling of Neuropsychological Test Data*. Seminar Biostatistics, School of Public Health University of Washington, Seattle, WA, USA. September 23, 2009. (Invited).
- *Bayesian Item Response Models For Complex Survey Data*. Presentation at the 23rd International Workshop on Statistical Modelling. Utrecht. July, 8, 2008. (Invited).
- *Advanced Posterior Predictive Assessment*. Presentation at the 73th Annual Meeting of the Psychometric Society. Dover, NH, USA. July, 1, 2008.

Referee for:

Journals: Journal of Educational and Behavioral Statistics (*Associate Editor*), British Journal of Mathematical and Statistical Psychology (*Associate Editor*), Psychometrika, Statistics in Medicine, Psychological Methods, Applied Psychological Methods, Computational Statistics and Data Analysis, ...

National Science Foundation (NSF, USA).

The Netherlands Organisation for Health Research and Development (ZonMw).

The Netherlands Organisation for Scientific Research (NWO). Selection committee Research Talent (2015).

Overview

Fox is a well-established researcher in the area of Bayesian response modelling. He developed a multilevel IRT model for analysing item response data and accounting for the nesting of respondents in clusters. This Bayesian hierarchical latent variable framework was the first to incorporate such a complex survey design in the psychometric model. The fully-integrated model correctly specifies dependencies at different hierarchical levels and can handle disaggregated and aggregated explanatory data. He received the 2001 Psychometric Association Dissertation award for his work on multilevel IRT modelling. Currently, for secondary analysis, large-scale surveys such as PISA, TIMMS, and PIAAC have followed this strategy by adopting the multilevel sampling design in the psychometric model. As a direct result, new statistical models and methods have been developed (by Fox and co-workers), amongst others:

1. Bayesian estimation of a multilevel IRT model. *Psychometrika*, 2001, 315 citations;
2. *Bayesian Item Response Modeling, Monograph*, 2010, 184 citations.
3. Bayesian modeling of measurement error in predictor variables using item response theory, *Psychometrika*, 2003, 85 citations.

The early contributions in the area of complex psychometric models of the PI have been recognized worldwide. In 2004, he received a personal grant (VENI, an innovational research incentives scheme) from the Netherlands Organisation for Scientific Research (NWO) for his research on multilevel IRT modelling. He is well-known for his work on multilevel IRT modelling and is world-wide frequently asked to give (keynote) lectures or courses. In later years, he has developed methods, in different directions, for large-scale survey research. A new approach has been developed for dealing with measurement invariance in cross-national comparative survey research, which avoids the complex specification of anchor items. Parts of the results were published in top journals in the field of marketing research. This research was supported by a personal grant in 2007 (VIDI, an innovational research incentives scheme) from the Netherlands Organisation for Scientific Research. Other new approaches focused on model extensions to deal with background questionnaire data and retrieving sensitive survey information. He has made novel contributions integrating the randomized response technique in survey methods to obtain accurately sensitive respondent information, which are currently implemented in large-scale survey studies on excessive alcohol consumption (Netherlands) and illegal downloading behaviour (Germany). Besides these survey studies, he is also involved in the Programme for International Student Achievement (PISA, cycle 2009).

His monograph entitled “Bayesian Item Response Modeling” was published in 2010 by Springer Science and has been positively reviewed in three excellent journals, covering research fields in statistics and psychometrics, and generally marked as an important contribution of a high technical level.

In 2005 he was offered a permanent position in the Research Institute for Social Sciences and Technology at the University of Twente. As a result of the successful research activities on Bayesian psychometric response modelling he was appointed a position on September 1st 2007. Recently, he also obtained a research position in the Institute for Innovation and Governance Studies with a focus on survey methodology in health assessment research using patient reported outcomes.