Curriculum Vitae

SOPHIA RABE-HESKETH

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ACADEMIC APPOINTMENTS

Current positions:

2003-present: Professor, Berkeley School of Education (Social Research Methodologies), Uni-

versity of California, Berkeley

2004-present: Professor, Graduate Group in Biostatistics, University of California, Berkeley

Previous positions:

2006-2012: Professor of Social Statistics, Department of Quantitative Social Science, Institute of Education, University of London (part-time position)

1994-2003: Lecturer to Reader in Statistics, Department of Biostatistics and Computing, Institute of Psychiatry, King's College, University of London

2003-2003: Reader in Statistics

1999-2003: Senior Lecturer in Statistics

1994-1999: Lecturer in Statistics

1992-1994: Postdoctoral Research Fellow (SERC Fellowship), Department of Statistics, University of Leeds

DEGREES

Ph.D., King's College, University of London, 1992, Theoretical Physics (Statistical image analysis) B.Sc. (Honors), King's College, University of London, 1988, Physics

RESEARCH INTERESTS

Multilevel, longitudinal, item response, structural equation and latent class models and their applications in educational, social, and medical research. Developing the GLLAMM (Generalized Linear Latent And Mixed Models) framework that unifies these models and allows specification of novel multilevel latent variable models for many types of responses including continuous, ordinal and nominal responses, rankings, counts and durations. Estimation methods for complex random effects and latent variable models and non-ignorable missing data problems. Collaborative research in education, psychiatry, psychology, and neuroscience.

STATISTICAL SOFTWARE DEVELOPMENT

Developing the free software gllamm within the general-purpose statistics package Stata for estimating the entire class of GLLAMM models by maximum likelihood using adaptive quadrature. Additional programs provide empirical Bayes predictions, diagnostics and simulations. The programs and further information are available from http://www.gllamm.org.

The software has been used in over 1000 peer-reviewed papers in over 750 different journals in a wide range of areas including education, psychology, social science, medicine, and statistics (see http://www.gllamm.org/pub.html). Short-courses on gllamm have been held in the UK, Germany, Sweden, Italy, Canada, Mexico, Norway, Ireland, Switzerland, and the U.S. The manual has been downloaded over 47,000 times.

Major honors and awards

Elected as Honorary Member of the European Association of Methodology, 2016

Elected to National Academy of Education, 2015

President of the Psychometric Society, 2014-2015

Fellow of the American Statistical Association, 2014

UC Berkeley Faculty Award for Outstanding Mentorship of Graduate Student Instructors, 2012

Elected to the International Statistical Institute, 2008

Advisee Dissertation Awards:

Michelle LaMar: 2015 Psychometric Society Dissertation Prize

Ronli Diakow: 2015 Brenda Loyd Dissertation Award, National Council on Measurement in Education

Minjeong Jeon: 2014 Brenda Loyd Dissertation Award, National Council on Measurement in Education

EDITORIAL SERVICE

Co-Editor, Statistical Methods in Medical Research, 2006-2011

Book series co-editor for the Chapman & Hall/CRC series Statistics in the Social and Behavioral Sciences, 2006-2012

Associate editor, Psychometrika, 2005-2015

Associate editor, Statistical Modelling, 2005-2011

Associate editor, The Stata Journal, 2001-present

Book review editor, Statistical Methods in Medical Research, 2000-2003

Section editor for Longitudinal and Multilevel Modelling in *Encyclopaedia of Statistics in Behavioral Science*. Wiley, 2005

Member of editorial board, Journal of Educational and Behavioral Statistics, 2011-2021

Member of editorial board, Structural Equation Modeling, 2006-present

Consulting editor, Psychological Methods, 2007-2012

Guest associate editor, Psychometrika, 2004

OTHER PROFESSIONAL SERVICE

Director of the Board of Trustees of the Psychometric Society, 2016-2023

Member of the Scientific Advisory Board of Center for Educational Measurement, University of Oslo, Norway, 2016-2019

Member of the Executive Committee of the *Psychometric Society* (as president-elect, president, past president), 2013-2016

Elected member of the Board of Trustees of the Psychometric Society, 2012-2013

Elected member of the Board of Trustees of the Psychometric Society, 2007-2010

Member of the Technical Advisory Group for the OECD Program of International Student Assessment (PISA), 2007-2016

Member of the Design and Analysis Committee for the U.S. National Assessment of Educational Progress (NAEP), 2006-present

Expert reviewer for "New Psychometric Models and Statistics" (conference proposals), Annual Meeting of the National Council on Measurement in Education, 2014

Principal member of the Statistics and Modeling Panel (grant proposals), *Institute of Education Sciences*, U.S. Department of Education, 2009-2012

Scientific program committees for conferences

- 2022 American Causal Inference Conference, UC Berkeley, 2022
- 2021 Stata Conference, Virtual, 2021
- Joint International Society for Clinical Biostatistics and Australian Statistical Conference, Melbourne, Australia, 2018
- International Meeting of the Psychometric Society, Columbia University, New York, NY, 2018
- International Meeting of the Psychometric Society, Zurich, Switzerland, 2017
- International Meeting of the Psychometric Society, Asheville, NC, USA, 2016
- Workshop on Big Data in Education: Balancing Research Needs and Student Privacy, National Academy of Education, Washington DC, USA, 2016
- International Meeting of the Psychometric Society (Chair), Beijing, China, 2015
- International Meeting of the Psychometric Society, Madison, WI, USA, 2014
- 32nd Annual Conference of the International Society for Clinical Biostatistics, Bergen, Norway, 2012
- 31st Annual Conference of the International Society for Clinical Biostatistics, Montpellier, France, 2010
- Fall North American Stata Users Group Meeting (co-chair), San Francisco, CA, USA, 2008
- West Coast Stata Users Group Meeting (co-chair), Marina del Rey, CA, USA, 2007
- International Workshop on Statistical Latent Variable Models in the Health Sciences, Perugia, Italy, 2006
- 9th UK Stata Users Group Meeting (co-chair), London, UK, 2003

Major university committees

- Committee for the Protection of Human Subjects (CPHS), University of California, Berkeley,
 2016 present
- Committee for Educational Policy (CEP), University of California, Berkeley, Academic Senate, 2010 2012
- Ethical Committee (Research), Institute of Psychiatry, King's College, University of London, 1999 - 2003

KEYNOTE LECTURES

- "Handling missing data by creating more missing data." Michigan Student Symposium for Interdisciplinary Statistical Sciences. University of Michigan at Ann Arbor, MI, USA, 2020.
- "How to make missingness ignorable in longitudinal modeling." 8th European Congress of Methodology, Jena, Germany, 2018.
- "Predictive Information Criteria in Hierarchical Bayesian Models for Clustered Data" (with Dan Furr). StanCon, Asilomar, Pacific Grove, CA, USA, 2018.
- "Multilevel modeling with missing data," American Educational Research Association 2016 Annual Meeting, Multilevel Modeling SIG, Washington, DC, 2016.
- "Ignoring non-ignorable missingness," International Meeting of the Psychometric Society, Beijing, China, 2015.
- "Consistent estimation of mixed models by ignoring non-ignorable missingness," 29th International Workshop on Statistical Modelling, Göttingen, Germany, 2014.
- "Simple methods for handling non-randomly missing data," *Modern Modeling Methods Conference*, University of Connecticut, Storrs, CO, USA, 2014.
- "Avoiding omitted-variable bias in multilevel models," Advances in Multilevel Modeling for Educational Research, University of Maryland, MD, USA, 2014.
- "Generalized linear latent and mixed models," 21st Australian Statistical Conference, Adelaide, SA, Australia, 2012.
- "Understanding variability in multilevel models for categorical responses," American Educational Research Association 2012 Annual Meeting, Hierarchical Linear Modeling SIG, Vancouver, BC, Canada, 2012.
- "Generalized linear latent and mixed models," 12th Annual Symposium on Statistics in Psychiatry, Yale University, New Haven, CT, USA, 2010.
- "Multilevel latent variable modeling," Statistical Modelling and Inference Conference to celebrate Murray Aitkin's 70th birthday. Queensland University of Technology, Brisbane, QLD, Australia, 2010.
- "Biometrical modeling of twin and family data in Stata," 8th German Stata Users Group Meeting, Humboldt University, Berlin, Germany, 2010.
- "Multilevel modeling of ordinal responses." *Mexican Stata Users Group Meeting*. Universidad Iberoamericana, Mexico City, Mexico, 2009.
- "Comparison of methods for handling endogenous covariates in longitudinal data." 73rd Annual Meeting of the Psychometric Society, Durham, NH, USA, 2008.
- "Generalized multilevel structural equation modeling." Winemiller Conference on Methodological Developments of Statistics in the Social Sciences. University of Missouri, Columbia, MO, USA, 2006.
- "New developments in latent variable modeling." Biennial Conference of the Fachgruppe Methoden und Evaluation of the German Psychological Society. University of Münster, Germany, 2005.
- "Diagnostics for multilevel models with categorical and discrete responses". Fourth International Amsterdam Conference on Multilevel Analysis, Amsterdam, the Netherlands, 2003.
- "Multilevel selection modeling using gllamm". Dutch and German Stata Users' Group Meeting, Maastricht, the Netherlands, 2002.
- "Generalizing the generalized linear mixed model". Third International Amsterdam Conference on Multilevel Analysis, Amsterdam, the Netherlands, 2001.

Publication and citation overview

- Publication IDs: https://orcid.org/0000-0002-5257-4837; Web of Science ResearcherID: B-1643-2008; Scopus Author ID: 7003779088
- 133 peer-reviewed articles in over 70 different journals, 6 co-authored books, 14 book chapters
- Over 12,000 citations of my articles in the ISI Web of Science (over 37,000 in Google Scholar) with an h-index of 55 (77 in Google Scholar), meaning that my 55 most-cited papers have each been cited at least 55 times
- Chung et al. (2013) is the **second** most cited paper published in *Psychometrika* since 2013 (ISI Web of Science, June, 2022: 257 citations, top 1% of the academic field of Psychiatry/Psychology)
- Merkle et al. (2019) is the **third** most cited paper published in *Psychometrika* since 2019 (ISI Web of Science, June, 2023: 37 citations)
- Rabe-Hesketh and Skrondal (2006) is the **fifth** most cited paper published in *Journal of the Royal Statistical Society, Series A* since 2006 (ISI Web of Science, June 2023: 406 citations)

AUTHORED BOOKS (6)

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frequently cited (ISI): *: \geq 20, **: \geq 50, ***: \geq 100, ****: \geq 300, *****: \geq 500, *****: \geq 1,000
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- Rabe-Hesketh, S. and Skrondal, A. (2022). *Multilevel and Longitudinal Modeling Using Stata* (Fourth Edition). Volume I: Continuous responses. College Station, TX: Stata Press, pp. xxviii + 554.***** (Volumes I&II, across editions)
 - With 341-page solutions manual
- Rabe-Hesketh, S. and Skrondal, A. (2022). *Multilevel and Longitudinal Modeling Using Stata* (Fourth Edition). Volume II: Categorical responses, counts, and survival. College Station, TX: Stata Press, pp. xxiii + 542.
 - With 243-page solutions manual
- Rabe-Hesketh, S. and Everitt, B. S. (2006). *Handbook of Statistical Analyses Using Stata* (Fourth Edition). Boca Raton, FL: Chapman & Hall/CRC, pp. ix + 342. *** (across editions)
 - With 121-page solutions manual
- Skrondal, A. and Rabe-Hesketh, S. (2004). Generalized Latent Variable Modelling: Multilevel, Longitudinal, and Structural Equation Models. Boca Raton, FL: Chapman & Hall/ CRC Press, pp. viii + 508. ******
 - With web site http://www.gllamm.org/books/genlat.html Translated into Chinese, Chongqing University Press, 2011.
- Everitt, B. S. and Rabe-Hesketh, S. (2001). Analyzing Medical Data using S-PLUS. New York: Springer, pp. vii + 485. *
- Everitt, B. S. and Rabe-Hesketh, S. (1997). The Analysis of Proximity Data. London: Arnold, pp. vii + 192. *
- Plus six earlier editions of the books above

EDITED BOOKS AND JOURNAL ISSUES (3)

- Skrondal, A. and Rabe-Hesketh, S. (Eds.), *Multilevel Modelling* (Volumes 1-4). Thousand Oaks, CA: Sage, 2010.
 - Vol. I: Linear Multilevel Models: Model Formulation
 - Vol. II: Linear Multilevel Models: Inference, Diagnostics, and Design
 - Vol. III: Multilevel Generalized Linear Models
 - Vol. IV: Complex Models and Issues
- Skrondal, A. and Rabe-Hesketh, S. (Eds.), Special issue on "Latent Variable Modelling." *Statistical Methods in Medical Research* 17 (1), 2008.
- Rabe-Hesketh, S. (Ed.), Special issue on "Analysis of Medical Images." Statistical Methods in Medical Research 6 (3), 1997.

PEER-REVIEWED JOURNAL ARTICLES (133)

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frequently cited (ISI): *: \geq 20, **: \geq 50, ***: \geq 100, ****: \geq 300, *****: \geq 1000 student: s, postdoc: p
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in press

- Gopalakrishnan, L., Bertozzi. S. and Rabe-Hesketh, S. (2023). Role of marriage, motherhood, son preference on adolescent girls' and young women's empowerment: Evidence from a panel study in India. *PLOS ONE*.
- Gopalakrishnan, L., Bertozzi. S., Bradshaw, P., Deasrdoff, J., Shakya, H. and Rabe-Hesketh, S. (2023). The role of gender norms on Intimate Partner Violence (IPV) among Newly Married Adolescent Girls and Young Women (AGYW) in India: A longitudinal multilevel analysis. *Violence Against Women*.

2023

- Ji^s, F., Rabe-Hesketh, S. and Skrondal, A. (2023). Diagnosing and handling common violations of missing at random. *Psychometrika*.
- Rabe-Hesketh, S. and Skrondal, A. (2023). Ignoring non-ignorable missingness. *Psychometrika* 88, 31-50.
- Paganin^s, S., Paciorek, C. J., Wehrhahn, C., Rodríguez, A., Rabe-Hesketh, S. and de Valpine, P. (2023). Computational strategies and estimation performance with Bayesian semiparametric item response theory models. *Journal of Educational and Behavioral Statistics* 48, 147–188.

2022

- Skrondal, A. and Rabe-Hesketh, S. (2022) The role of conditional likelihoods in latent variable modeling. *Psychometrika* 87(3), 799-834.
- Bathia^s, S., Fuller, B., Rabe-Hesketh, S., Galindo, C. and Lagos, F. (2022). Finding integrated schools? Latino children in diverse suburbs, 2000-2015. *The Russell Sage Foundation Journal* 9, 104-131.

- Lee^s, J., Fuller, B. and Rabe-Hesketh, S. (2021). How finance reform may alter teacher and school quality California's \$23 billion initiative. *American Educational Research Journal* 58, 1225-1269.
- Chen^s, Y.-J. I, Cunningham, A. E., Rabe-Hesketh, S., Hinshaw, S. P. and Irey, R. C. (2019). The effect of orthographic neighbors on second-grade students' spelling acquisition. *Reading Research Quarterly* 56, 119–141.

Harvey, A. G., Dong^p, L., Hein^s, K., Yu, S., Martinez^s, A., Gumport^s, N., Smith, F.L., Chapman, A., Lisman, M., Mirzadegan, I.A., Mullin, A., Fine, E., Dolsen^s, M., Gasperetti, C.E., Bukosky, J., Alvarado-Martinez, C., Kilbourne, A., Rabe-Hesketh, S. and Buysse, D. J. (2021). A randomized controlled trial of the Transdiagnostic Intervention for Sleep and Circadian Dysfunction (TranS-C) to improve serious mental illness outcomes in a community setting. *Journal of Consulting and Clinical Psychology* 89, 537-550.

2020

Gin^s, B., Sim^s, N., Skrondal, A. and Rabe-Hesketh, S. (2020). A dyadic IRT model. *Psychometrika* 85(3), 815–836.

2019

- Merkle, E., Furr^s, D. and Rabe-Hesketh, S. (2019). Bayesian model assessment: Use of conditional vs marginal likelihoods. *Psychometrika* 84(3), 802-829. *
- Jeon^s, M., Kaufman, C. and Rabe-Hesketh, S. (2019). Monte Carlo local likelihood for estimating generalized linear mixed models. *Biostatistics* 20, 164-179.
- Shin^s, H. Y., Rabe-Hesketh, S. and Wilson, M. (2019). Trifactor models for multiple-ratings data. *Multivariate Behavioral Research* 54 (3), 360-381.

2018

- Jeon, M., Rijmen, F. and Rabe-Hesketh, S. (2018). CFA models with a general factor and multiple sets of secondary factors. *Psychometrika* 83, 785-808.
- Breinegaard^s, N., Rabe-Hesketh, S. and Skrondal, A. (2018). Pairwise residuals and diagnostic tests for misspecified dependence structures in models for binary longitudinal data. *Statistics in Medicine* 37, 343-356.
- Harvey, A. G., Hein^s, K., Dolsen^s, M., Dong^p, L., Rabe-Hesketh, S., Gumport^s, N. B., Kanady, J., Wyatt, J. K., Hinshaw, S. P., Silk, J. S., Smith, R. L., Thompson, M. A., Zannone, N. and Blum, D. J. (2018). Modifying the impact of eveningness chronotype ("night owls") in adolescence: A randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry* 57, 742-745. **

2017

- Jeon, M., Rijmen, F. and Rabe-Hesketh, S. (2017). A variational maximization-maximization algorithm for generalized linear mixed models with crossed random effects. *Psychometrika* 82, 693-716.
- Breinegaard^s, N., Rabe-Hesketh, S. and Skrondal, A. (2017). The transition model test for serial dependence in mixed-effects models for binary data. *Statistical Methods in Medical Research* 26, 1756-1773.
- Fuller, B., Bein^p, E., Bridges, M., Kim^s, Y. and Rabe-Hesketh, S. (2017). Do academic preschools yield stronger benefits? Cognitive emphasis, dosage, and early learning. *Journal of Applied Developmental Psychology* 52, 1-11. * [Discussed in *New York Times* article "Geometry lessons vs. fun with blocks: study stirs pre-k debate" on 5/31/2016]
- Harvey, A. G., Dong^p, L., Lee^s, J. Y., Gumport^s, N. B., Hollon, S. D., Rabe-Hesketh, S., Hein^s, K., Haman, K., McNamara, M., Weaver, C., Martinez^s, A., Notsu, H., Zieve, G. and Armstrong, C. C. (2017). Can integrating the memory support intervention into cognitive therapy improve depression outcome? Study protocol for a randomized controlled trial. *Trials* 18:539.

2016

Jeon^s, M. and Rabe-Hesketh, S. An autoregressive growth model for longitudinal item analysis. *Psychometrika* 81, 830–850.

- Harvey, A. G., Lee^s, J., Smith, R., Gumport^s, N., Hollon, S. D., Rabe-Hesketh, S., Hein^s, K., Dolsen^s, M.R., Hamen, K., Kanady^s, J., Thompson, M. A. and Abrons, D. (2016). Improving outcome for mental disorders by enhancing memory for treatment. *Behavior Research and Therapy* 81, 35-46. *
- Harvey, A.G., Hein^s, K., Dong, L., Smith, F.L., Lisman, M., Yu, S., Rabe-Hesketh, S. and Buysse, D.J. (2016). A transdiagnostic sleep and circadian treatment to improve severe mental illness outcomes in a community setting: Study protocol for a randomized controlled trial. *Trials* 17:606.

- Chung^p, Y., Gelman, A., Rabe-Hesketh, S., Liu, S. and Dorie^s, V. (2015). Weakly informative prior for point estimation of covariance matrices in hierarchical models. *Journal of Educational and Behavioral Statistics* 40, 136-157. **
- Harvey, A. G., Soehner^s, A. M., Kaplan^s, K. A., Hein^s, K., Lee^s, J., Kanady^s, J., Li, D., Rabe-Hesketh, S., Ketter, T. A., Neylan, T. C. and Buysse, D. J. (2015). Treating insomnia improves mood state, sleep, and functioning in bipolar disorder: A pilot randomized controlled trial. *Journal of Consulting and Clinical Psychology* 83, 564-577. ***
- Fuller, B., Bein^p, E., Kim^s, Y., and Rabe-Hesketh, S. (2015). Differing cognitive trajectories of Mexican-American toddlers - The role of class, nativity, and maternal practices. *Hispanic Journal of Behavioral Sciences* 37, 139-169.

2014

- Skrondal, A. and Rabe-Hesketh, S. (2014). Protective estimation of mixed-effects logistic regression when data are not missing at random. *Biometrika* 101, 175-188
- Skrondal, A. and Rabe-Hesketh, S. (2014). Handling initial conditions and endogenous covariates in dynamic/transition models for binary data with unobserved heterogeneity. *Journal of the Royal Statistical Society, Series C* 63, 211-237. **
- Cho^p, S.-J., de Boeck, P., Embretson, S. and Rabe-Hesketh, S. (2014). Additive multilevel item structure models with random residuals: Item modeling for explanation and item generation. *Psychometrika* 79, 84-104. *
- Castellano^p, K. E., Rabe-Hesketh, S. and Skrondal, A. (2014). Composition, context, and endogeneity in school and teacher comparisons. *Journal of Educational and Behavioral Statistics* 39, 333-367. *
- Miranda, A. and Rabe-Hesketh, S. (2014). Missing ordinal covariate with informative selection. Journal of the Royal Statistical Society, Series A 177, 319-344.
- Bates^s, M. D., Castellano^p, K. E., Rabe-Hesketh, S. and Skrondal, A. (2014). Handling correlations between covariates and random slopes in multilevel models. *Journal of Educational and Behavioral Statistics* 39, 524-549.
- Jeon^p, M., Rijmen, F. and Rabe-Hesketh, S. (2014). Flexible item response theory modeling with FLIRT. Applied Psychological Measurement 38, 404-405.
- Rijmen, F., Jeon^p, M., von Davier, M. and Rabe-Hesketh, S. (2014). A third-order item response theory model for modeling the effects of domains and subdomains in large-scale educational assessment surveys. *Journal of Educational and Behavioral Statistics* 39, 245-256.

- Rabe-Hesketh, S. and Skrondal, A. (2013). Avoiding biased versions of Wooldridge's simple solution to the initial conditions problem. *Economics Letters* 120, 346-349. **
- Ayers^p, E., Rabe-Hesketh, S., and Nugent, R. (2013). Incorporating student covariates in cognitive diagnosis models. *Journal of Classification* 30, 195-224.

- Chung^p, Y., Rabe-Hesketh, S., Dorie^s, V., Gelman A. and Liu, J. (2013). A nondegenerate penalized likelihood estimator for variance parameters in multilevel models. *Psychometrika* 78(4), 685-709. ***top 1% of the academic field of Psychiatry/Psychology
- Chung^p, Y., Rabe-Hesketh, S. and Choi^s, I.-H. (2013). Avoiding zero between-study variance estimates in random-effects meta-analysis. *Statistics in Medicine* 32, 4071-4089. **
- Jeon^s, M., Rijmen, F. and Rabe-Hesketh, S. (2013). Modeling differential item functioning using a generalization of the multiple-group bifactor model. *Journal of Educational and Behavioral Statistics* 38, 32-60. *
- Roberts, E. S., Chana, G., Nguyen, T. B., Perera, G., Landau, S., Rabe-Hesketh, S., Glass, J. D. McArthur, J. and Everall, J. P. (2013). The spatial relationship between neurons and astrocytes in HIV-associated dementia. *Journal of Neuro Virology* 19, 123-130.

- Feldman^p, B. and Rabe-Hesketh, S. (2012). Modeling achievement trajectories when attrition is informative. *Journal of Educational and Behavioral Statistics* 37, 703-736.
- Jeon^s, M. and Rabe-Hesketh, S. (2012). Profile-likelihood approach for estimating generalized linear mixed models with factor structures. *Journal of Educational and Behavioral Statistics* 37, 518-542.

2011

- Cho^p, S.-J. and Rabe-Hesketh, S. (2011). Alternating imputation posterior estimation of models with crossed random effects. *Computational Statistics and Data Analysis* 55, 12-25. *
- Dearden, L., Miranda, A. and Rabe-Hesketh, S. (2011). Measuring school value added with administrative data: The problem of missing variables. *Fiscal Studies* 32, 263-278.

2010

- Fuller, B., Bein^p, E., Bridges, B., Halfon, N., Jung, S., Rabe-Hesketh, S., and Kuo, A. (2010). Maternal practices that influence Latino infants' health and cognitive growth. *Pediatrics* 125, 324-332.
- Katzman, M. A., Bara-Carril, N., Rabe-Hesketh, S., Schmidt, U., de Silva, P., Troop, N. and Treasure, J. (2010). A randomized controlled two stage trial in the treatment of bulimia nervosa, comparing CBT versus motivational enhancement in phase 1 followed by group versus individual CBT in phase 2. *Psychosomatic Medicine* 72, 656-663. *

- Skrondal, A. and Rabe-Hesketh, S. (2009). Prediction in multilevel generalized linear models. Journal of the Royal Statistical Society, Series A 172, 659-687. ***
- Anderluh, M., Tchanturia, K., Rabe-Hesketh, S., Collier, D., and Treasure, J. (2009). Lifetime course of eating disorders: Design and validity testing of a new strategy to define the eating disorders phenotype. *Psychological Medicine* 39, 105-114. **
- Collishaw, S., Goodman, R., Ford, T., Rabe-Hesketh, S. and Pickles, A. (2009). How far are associations between child, family and community factors and child psychopathology informant-specific and informant-general? *The Journal of Child Psychology and Psychiatry* 50, 571-580.

- Fuller, B., Bridges, B., Jang, H., Jung, S., Rabe-Hesketh, S., Bein^p, E., Halfon, N. and Kuo, A. (2009). The health and cognitive growth of Latino toddlers: At risk or immigrant paradox? Maternal and Child Health Journal 13, 755-768. **
- Hayward, P., David, A. S., Green, N., Rabe-Hesketh, S., Haworth, E., Thompson, N., Schaffer S., Hastilow, S. and Wykes T. (2009). Promoting therapeutic alliance in Clozapine users: An exploratory randomized controlled trial. *Clinical Schizophrenia & Related Psychoses* 3, 127-132.

- Rabe-Hesketh, S., Skrondal, A. and Gjessing, H. K. (2008). Biometrical modeling of twin and family data using standard mixed model software. *Biometrics* 64, 280-288. **
- Rabe-Hesketh, S. and Skrondal, A. (2008). Classical latent variable models for medical research. Statistical Methods in Medical Research 17, 5-32. ***

2007

- Rabe-Hesketh, S. and Skrondal, A. (2007). Multilevel and latent variable modelling with composite links and exploded likelihoods. *Psychometrika* 72, 123-140. *
- Skrondal, A. and Rabe-Hesketh, S. (2007). Latent variable modelling: A survey. Scandinavian Journal of Statistics 34, 712-745. **
- Skrondal, A. and Rabe-Hesketh, S. (2007). Redundant overdispersion parameters in multilevel models for categorical responses. *Journal of Educational and Behavioral Statistics* 32, 419-430.
- Zheng^s, X. and Rabe-Hesketh, S. (2007). Estimating parameters of dichotomous and ordinal item response models using gllamm. *The Stata Journal* 7, 313-333. **
- Eranti, S., Mogg, A., Pluck, G., Landau, S., Purvis, R., Brown, R. G., Howard, R., Knapp, M., Philpot, M., Rabe-Hesketh, S., Romeo, R., Rothwell, J., Edwards, D. and McLoughlin, D. M. (2007). A randomized, controlled trial with 6-month follow-up of repetitive transcranial magnetic stimulation and electroconvulsive therapy for severe depression. *American Journal of Psychiatry* 164, 73-81. ***
- Kravariti, E., Morris, R. G., Rabe-Hesketh, S., Murray R. M. and Frangou, S. (2007). Comparative profile analysis of cognitive function in recent-onset and chronic patients with adolescent-onset schizophrenia. *Schizophrenia Research* 94, 240-244.
- Ma, X. H., Wang, Q., Sham, P. C., Liu, X. H., Rabe-Hesketh, S., Sun, X. L., Hu, J. M., Meng, H. Q., Chen, W., Chen, E. Y. H., Deng, W., Chan, R. C. K., Murray, R. M., Collier, D. A. and Li, T. (2007). Neurocognitive deficits in first-episode schizophrenic patients and their first-degree relatives. American Journal of Medical Genetics Part B-Neuropsychiatric Genetics 144, 407-416. **

2006

- Rabe-Hesketh, S. and Skrondal, A. (2006). Multilevel modeling of complex survey data. Journal of the Royal Statistical Society, Series A 169, 805-827. ****most downloaded JRSSA paper in 2006–2009
- Bolton, D., Eley, T. C., O'Connor, T. G., Perrin, S., Rabe-Hesketh, S., Rijsdijk, F. and Smith, P. (2006). Prevalence and genetic and environmental influences on anxiety disorders in 6-year-old twins. *Psychological Medicine* 36, 335-344. *
- Carcani-Rathwell, I., Rabe-Hesketh, S. and Santosh, P. J. (2006). Repetitive and stereotyped behaviours in pervasive developmental disorders. *The Journal of Child Psychology and Psychiatry* 47, 573-81. **
- Miranda, A. and Rabe-Hesketh, S. (2006). Maximum likelihood estimation of endogenous switching and sample selection models for binary, ordinal, and count variables. *The Stata Journal* 6, 285-308. ***
- Schulze, K., MacCabe, J. H., Rabe-Hesketh, S., Crawford, T., Marshall, N., Zanelli, J., Walshe, M., Bramon, E., Murray, R. M. and McDonald, C. (2006). The relationship between eye movement and brain structural abnormalities in patients with schizophrenia and their unaffected relatives. *Journal of Psychiatric Research* 40, 589-598.

2005

Rabe-Hesketh, S., Skrondal, A. and Pickles, A. (2005). Maximum likelihood estimation of limited and discrete dependent variable models with nested random effects. *Journal of Econometrics* 128, 301-323. ****

Zanelli, J., Simon, H., Rabe-Hesketh, S., Walshe, M., McDonald, C., Murray, R. M. and MacCabe, J. H. (2005). Eye tracking in schizophrenia: Does the antisaccade task measure anything that the smooth pursuit task does not? *Psychiatry Research* 136, 181-188.

2004

- Rabe-Hesketh, S., Skrondal, A. and Pickles, A. (2004). Generalized multilevel structural equation modeling. *Psychometrika* 69, 167-190. ****
- Landau, S., Rabe-Hesketh, S. and Everall, I. (2004). Nonparametric one-way analysis of variance of replicated bivariate spatial point patterns. *Biometrical Journal* 46, 19-34.
- Bramon, E., Rabe-Hesketh, S., Sham, P., Murray, R. M. and Frangou, S. (2004). Meta-analysis of the P300 and P50 waveforms in schizophrenia. *Schizophrenia Research* 70, 315-329. ****
- Cervilla, J., Prince, M., Rabe-Hesketh, S. (2004). Vascular disease risk factors as determinants of incident depressive symptoms: A prospective community-based study. *Psychological Medicine* 43, 635-641. *
- Ettinger, U., Kumari, V., Crawford, T. J., Corr, P. J., Das, M., Zachariah, E., Hughes, C., Sumich, A. L., Rabe-Hesketh, S. and Sharma, T. (2004). Smooth pursuit and antisaccade eye movements in siblings discordant for schizophrenia. *Journal of Psychiatric Research* 38, 177-184.
- Gudjonsson, G. H., Rabe-Hesketh, S. and Szmukler, G. (2004). Management of psychiatric inpatient violence: Patient ethnicity and use of medication, restraint and seclusion. *British Journal of Psychiatry* 184, 258-262. **
- Ismail, K., Winkley, K. and Rabe-Hesketh, S. (2004). Systematic review and meta-analysis of randomised controlled trials of psychological interventions to improve glycaemic control in patients with type 2 diabetes. *The Lancet* 363, 1589-1597. ****
- Kuipers, E., Holloway, F., Rabe-Hesketh, S. and Tennakoon, L. (2004). An RCT of early intervention in psychosis: Croydon Outreach and Assertive Support Team (COAST). Social Psychiatry and Psychiatric Epidemiology 39, 358-363. **
- McDonald, C., Zanelli, J., Rabe-Hesketh, S., Ellison-Wright, I., Sham, P., Kalidindi, S., Murray, R. M. and Kennedy, N. (2004). Meta-analysis of magnetic resonance imaging brain morphometry studies in bipolar disorder. *Biological Psychiatry* 56, 411-417. ***
- Rutter, S., Gudjonsson, G. and Rabe-Hesketh, S. (2004). Violent incidents in a medium secure unit: The characteristics of persistent perpetrators of violence. *Journal of Forensic Psychiatry and Psychology* 15, 293-302.
- Tchanturia, K., Anderluh, M.B., Morris, R.G., Rabe-Hesketh, S., Collier, D.A., Sanchez, P. and Treasure, J. L. (2004). Cognitive flexibility in anorexia nervosa and bulimia nervosa. *Journal of the International Neuropsychological Society* 10, 513-520. ***
- Toulopoulou, T., Grech, A., Morris, R. G., Schulze, K., McDonald, C., Chapple, B., Rabe-Hesketh, S. and Murray, R. M. (2004). The relationship between volumetric brain changes and cognitive function: A family study on schizophrenia. *Biological Psychiatry* 56, 447-653. **

- Skrondal, A. and Rabe-Hesketh, S. (2003). Multilevel logistic regression for polytomous data and rankings. *Psychometrika* 68, 267-287. ***
- Rabe-Hesketh, S., Pickles, A. and Skrondal, A. (2003). Correcting for covariate measurement error in logistic regression using nonparametric maximum likelihood estimation. *Statistical Modelling* 3, 215-232. **
- Rabe-Hesketh, S., Skrondal, A. and Pickles, A. (2003). Maximum likelihood estimation of generalized linear models with covariate measurement error. *The Stata Journal* 3, 385-410. *

- Skrondal, A. and Rabe-Hesketh, S. (2003). Some applications of generalized linear latent and mixed models in epidemiology: Repeated measures, measurement error and multilevel modeling. *Norsk Epidemiologi* 13, 265-278. *
- Anderluh, M. B., Tchanturia, K., Rabe-Hesketh, S. and Treasure, J. (2003). Childhood obsessive-compulsive personality traits in adult women with eating disorders: Defining a broader eating disorder phenotype. *The American Journal of Psychiatry* 160, 242-247. ***
- Fleminger, S., Oliver, D. L., Lovestone. S., Rabe-Hesketh, S. and Giora, A. (2003). Head injury as a risk factor for Alzheimer's disease; the evidence ten years on; a partial replication. *Journal of Neurology, Neurosurgery & Psychiatry* 74, 857-862. ****
- Karwautz, A., Troop, N. A., Rabe-Hesketh, S., Collier, D. A. and Treasure, J. L. (2003). Personality disorders and personality dimensions in anorexia nervosa. *Journal of Personality Disorders* 17, 73-85. *
- Kravariti, E., Morris, R. G., Rabe-Hesketh, S., Murray, R. M. and Frangou, S. (2003). The Maudsley early onset schizophrenia study: Cognitive function in adolescents with recent onset schizophrenia . Schizophrenia Research 61, 137-148. **
- Patel, V., Chisholm, D., Rabe-Hesketh, S., Dias-Saxena, F., Andrew, G. and Mann, A. (2003). Efficacy and cost-effectiveness of drug and psychological treatments for common mental disorders in general health care in Goa, India: a randomised, controlled trial. *The Lancet* 361, 33-39.
- Toulopoulou, T., Morris, R. G., Rabe-Hesketh, S. and Murray, R. M. (2003). Selectivity of verbal memory deficit in schizophrenic patients and their relatives. *American Journal of Medical Genetics-Neuropsychiatric Genetics* 116, 1-7. **
- Toulopoulou, T., Rabe-Hesketh, S., King, H., Murray, R. M. and Morris, R. G. (2003). Episodic memory in schizophrenic patients and their relatives. *Schizophrenia Research* 63, 261-271. **

- Rabe-Hesketh, S., Skrondal, A. and Pickles, A. (2002). Reliable estimation of generalized linear mixed models using adaptive quadrature. *The Stata Journal* 2, 1-21. ****
- Ettinger, U., Kumari, V., Chitnis, X. A., Corr, P. J., Sumich, A. L., Rabe-Hesketh, S., Crawford, T. J. and Sharma, T. (2002). Relationship between brain structure and saccadic eye movements in healthy humans. *Neuroscience Letters* 328, 225-8.
- Ferri, C. P., Gossop, M., Rabe-Hesketh, S. and Laranjeira, R. (2002). Differences in factors associated with first treatment entry and treatment re-entry among cocaine users. *Addiction* 97, 825-832.
- Karwautz, A., Rabe-Hesketh, S., Collier, D. A. and Treasure, J. L. (2002). Pre-morbid psychiatric morbidity, comorbidity and personality in patients with anorexia nervosa compared to their healthy sisters. *European Eating Disorders Review* 10, 255-270. *
- Minnis, H., Rabe-Hesketh, S. and Wolfkind, S. (2002). Development of a brief, clinically relevant, scale for measuring attachment disorders. *International Journal of Methods in Psychiatric Research* 11, 90-98. **
- Surguladze, S., Rossell, S., Rabe-Hesketh, S. and David, A. (2002). Cross-modal semantic priming in schizophrenia. *Journal of the International Neuropsychological Society* 8, 884-892.
- Uchoa R., Wolff K., Patel V., Rabe-Hesketh S. and Strang J. (2002). Exploring the associations between social class, binge drinking, and other risk behaviors among Brazilian young people. *International Perspectives on Child and Adolescent Mental Health* 2(C), 501-517.

2001

Rabe-Hesketh, S. and Skrondal, A. (2001). Parameterization of multivariate random effects models for categorical data. *Biometrics* 57, 1256-1263. *

- Rabe-Hesketh, S., Pickles, A. and Yang, S. (2001). Multilevel models for censored and latent responses. Statistical Methods in Medical Research 10, 409-427. *
- Rabe-Hesketh, S., Toulopoulou, T. and Murray, R. (2001). Multilevel modeling of cognitive function in schizophrenic patients and their first degree relatives. *Multivariate Behavioral Research* 36, 279-298.
- Arcuri, S., Rabe-Hesketh, S., Morris, R. G. and McGuire, P. K. (2001). Regional variation of cloze probabilities for sentence contexts. *Behavior Research Methods, Instruments, & Computers* 33, 80-90.
- Furukawa, T. A., Goldberg, D. P., Rabe-Hesketh, S. and Ustun, T. B. (2001). Stratum-specific likelihood ratios for two versions of the General Health Questionnaire. *Psychological Medicine* 31, 519-529. *
- Hennessy, M. J., Elwes, R. D. C., Honavar, M., Rabe-Hesketh, S., Binnie, C. D. and Polkey, C. E. (2001). Predictors of outcome and pathological considerations in the surgical treatment of intractable epilepsy associated with temporal lobe lesions. *Journal of Neurology, Neurosurgery and Psychiatry* 70, 450-458. ***
- Hennessy M. J., Elwes R. D. C., Rabe-Hesketh, S., Binnie, C. D. and Polkey, C. E. (2001). Prognostic factors in the surgical treatment of medically intractable epilepsy associated with mesial temporal sclerosis. *Acta Neurologica Scandinavica* 103, 344-350. **
- Karwautz, A., Rabe-Hesketh, S., Treasure, J. and Collier, D. (2001). Individual-specific risk factors for anorexia nervosa: A pilot study using a discordant sister-pair design. *Psychological Medicine* 31, 317-329. **
- Kircher, T. T. J., Senior, C., Phillips, M. L., Rabe-Hesketh, S., Benson, P. J., Bullmore, E. T., Brammer, M. J., Simmons, A. Bartels, M. and David, A. S. (2001). Recognizing one's own face. *Cognition* 78, B1-B15. ***
- Nimnuan C., Rabe-Hesketh, S., Wessely, S. and Hotopf, M. (2001). How many functional syndromes? *Journal of Psychosomatic Research* 5, 549-557. ***
- Smith P., Perrin S., Yule W. and Rabe-Hesketh, S. (2001). War exposure and maternal reactions in the psychological adjustment of children from Bosnia Hercegovina. *Journal of Child Psychology and Psychiatry and Allied Disciplines* 42, 395-404. ***

- Gudjonsson, G. H., Rabe-Hesketh, S. and Wilson, C. (2000). Violent incidents on a medium secure unit. The target of assault and the management of incidents. *The Journal of Forensic Psychiatry* 11, 105-118. *
- Hannam, S., Ingram D. M., Rabe-Hesketh, S. and Milner, A. D. (2000). Characterisation of the Hering-Breuer deflation reflex in the human neonate. *Respiration Physiology* 124, 51-64.
- Kuperberg, G. R., McGuire, P. K., Bullmore, E. T., Brammer, M. J., Rabe-Hesketh, S., Wright, I. C., Lythgoe, D. Williams, S. C. R. and David, A. S. (2000). Common and distinct neural substrates for processing pragmatic, semantic and syntactic information within spoken sentences: An fMRI study. *Journal of Cognitive Neuroscience* 12, 321-41. ***
- Kuyken, W., Peters, E., Power, M., Lavender, T. and Rabe-Hesketh, S. (2000). The Psychological adaptation of trainee psychologists. *Clinical Psychology and Psychotherapy* 7, 394-400.
- Tomik, B., Nicotra, A., Ellis, C. M., Murphy, C., Rabe-Hesketh, S., Parton, M., Shaw, C. E. and Leigh, P. N. (2000). Phenotypic differences between African and white patients with motor neuron disease: A case-control study. *Journal of Neurology, Neurosurgery and Psychiatry* 69, 251-253.
- Wright, C. W., Rabe-Hesketh, S., Woodruff, P. W. R., David, A. S., Murray, R. M. and Bullmore, E. T. (2000). Meta-Analysis of Regional Brain Volumes in Schizophrenia. The American Journal of Psychiatry 157, 1-25. *****

- Bullmore, E. T., Brammer, M. J., Rabe-Hesketh, S., Curtis, V. A., Morris, R.G., Williams S. C. R., Sharma, T. and McGuire, P. K. (1999). Methods for diagnosis and treatment of stimulus correlated motion in generic brain activation studies using fMRI. *Human Brain Mapping* 7, 38-48. ****
- Bullmore, E. T., Suckling, J., Overmeyer, S., Rabe-Hesketh, S. and Brammer, M. J. (1999). Global, voxel and cluster tests, by theory and permutation, for a difference between two groups of structural MR images of the brain. *IEEE Transactions on Medical Imaging* 18, 32-42. *****
- Cannon, M., Jones, P., Huttunen, M. O., Tankanend, A., Murray, R. M. and Rabe-Hesketh, S. (1999). School performance in Finnish school children and later development of schizophrenia: A population-based longitudinal study. *Archives of General Psychiatry* 56, 457-463. ***
- Rossell, S. L., Rabe-Hesketh, S., Shapleske, J. and David, A. S. (1999). Is semantic fluency differentially impaired in schizophrenic patients with delusions? *Journal of Experimental and Clinical Neuropsychology* 21, 629-42. **
- Baxter, R., Rabe-Hesketh, S. and Parrott, J. (1999). Characteristics, needs, and reoffending in a group of patients with schizophrenia formerly treated in medium security. *The Journal of Forensic Psychiatry* 10, 69-83. *
- Boylan, G. B., Penerai, R. B., Rennie, J. M., Evans, D. H., Rabe-Hesketh, S. and Binnie, C. D. (1999). Cerebral blood flow velocity during neonatal seizures. *Archives of Disease in Childhood* 80, 105-110. *
- Gilvarry, C. M., Walsh, E., Samele, G., Hutchinson, R. Mallett, R., Rabe-Hesketh, S., Fahy, T., Van Os, J. and Murray, R. M. (1999). Life events, ethnicity and perceptions of discriminaiton in patients with severe mental illness. *Social Psychiatry and Psychiatric Epidemiology* 34, 600-608.
- Gudjonsson, G. H., Rabe-Hesketh, S. and Wilson, C. (1999). Violent incidents on a medium secure unit over a 17-year period. *The Journal of Forensic Psychiatry* 10, 249-263. *
- Stefanis, N., Rabe-Hesketh, S., Clark, B. and Bebbington, P. (1999). An evaluation of a psychiatric emergency clinic. *Journal of Mental Health* 8, 29-49.

1998

- Rabe-Hesketh, S. (1998). Analysing violent incidents and other events. *International Journal of Methods in Psychiatric Research* 7, 204-209.
- Bullmore, E. T., Woodruff, P. W. R., Wright, I. C., Rabe-Hesketh, S., Howard, R. J., Dhuriquie, N. and Murray, R. M. (1998). Does dysplasia cause anatomical dysconnectivity in schizophrenia? Schizophrenia Research 30, 127-135. **
- Joyce, J., Rabe-Hesketh, S. and Wessely, S. (1998). Reviewing the reviews: The example of chronic fatigue syndrome. *Journal of the American Medical Association* 280, 264-266. *
- Kouyanou, K., Pither, C. E., Rabe-Hesketh, S. and Wessely, S. (1998). A comparative study of iatrogenesis, medication abuse, and psychiatric morbidity in chronic pain patients with and without medically explained symptoms. *Pain* 76, 417-426. **
- Prince, M. J., Rabe-Hesketh, S. and Brennan, P. (1998). Do anti-arthritic drugs decrease the risk for cognitive decline? An analysis based on data from the MRC treatment trial of hypertension in older adults. *Neurology* 50, 374-379. *

1997

Rabe-Hesketh, S., Bullmore, E. T. and Brammer, M. J. (1997). The analysis of functional magnetic resonance images. *Statistical Methods in Medical Research* 6, 215-237. *

Brammer, M. J., Bullmore, E. T., Simmons, A., Williams, S. C. R., Grasby, P. M., Howard, R. J. Woodruff, P. W. R. and Rabe-Hesketh, S. (1997). Generic brain activation mapping in functional magnetic resonance imaging: A nonparametric approach. *Magnetic Resonance Imaging* 15, 763-770. ****

1996

- Bullmore, E. T., Brammer, M. J., Williams, S. C. R., Rabe-Hesketh, S., Janot, N., David, A., Mellers, J., Howard, R. and Sham, P. (1996). Statistical methods of estimation and inference for functional MR image analysis. *Magnetic Resonance in Medicine* 35, 261-277. ****
- Bullmore, E. T., Rabe-Hesketh, S., Morris, R. G., Williams, S. C. R., Gregory, L., Gray, J. A. and Brammer, M. J. (1996). Functional magnetic resonance image analysis of a large-scale neurocognitive network. *NeuroImage* 4, 16-33. ***

1994

Rabe, S. and Mardia, K. V. (1994). Generalized Ising models and their applications. *Journal of Applied Statistics* 21, 487-502.

Book Chapters (14)

- Rabe-Hesketh, S. and Skrondal, A. (2018). GLLAMM. In van der Linden, W. J. (Ed.) *Handbook of Item Response Theory, Volume Three: Applications*. Boca Raton, FL: Chapman & Hall/CRC Press, volume 3, chapter 29, pp. 519-532.
- Rabe-Hesketh, S. and Skrondal, A. (2016). Generalized linear latent and mixed modeling. In van der Linden, W. J. (Ed.) *Handbook of Item Response Theory, Volume One: Models.* Boca Raton, FL: Chapman & Hall/CRC Press, volume 1, pp. 503-526.
- Rijmen, F., Jeon, M. and Rabe-Hesketh, S. (2016). Variational approximation methods. In van der Linden, W. J. (Ed.) *Handbook of Item Response Theory, Volume two: Statistical Tools.* Boca Raton, FL: Chapman & Hall/CRC Press, volume 2, pp. 259-270.
- Rijmen, F., Jeon, M., von Davier, M. and Rabe-Hesketh, S. (2014). A general psychometric approach for educational survey assessments: flexible statistical models and efficient estimation methods. In Rutkowski, L., von Davier, M. and Rukowski, D. (Eds.) Handbook of International Large-Scale Assessment: Background, Technical Issues, and Methods of Analysis. Boca Raton, FL: Chapman & Hall/CRC Press, pp. 583-606.
- Skrondal, A. and Rabe-Hesketh. S. (2012). Generalized linear latent and mixed models. In Veierod, M. B., Lydersen, S., and Laake, P. (Eds.) *Statistical Methods in Clinical and Epidemiological Research*. Oslo: Gyldendal Akademisk, pp. 289-329.
- Rabe-Hesketh, S., Skrondal, A. and Zheng, X. (2012). Multilevel structural equation modeling. In Hoyle, R. (Ed.). *Handbook of Structural Equation Modeling*. Guilford Press, pp. 512-531.
- Rabe-Hesketh, S. and Skrondal, A. (2010). Generalized linear mixed models. Penelope Peterson, Eva Baker, Barry McGaw (Eds.), *International Encyclopedia of Education (Third Edition)*. Oxford: Elsevier, volume 7, pp. 171-177.
- Rabe-Hesketh, S. and Skrondal, A. (2009). Generalized linear mixed-effects models. In Fitzmaurice, G., Davidian, M., Verbeke, G., and Molenberghs, G. (Eds.), *Longitudinal Data Analysis*. Boca Raton, FL: Chapman & Hall/CRC, pp. 79-106.
- Bollen, K., Rabe-Hesketh, S. and Skrondal, A. (2008). Structural equation models. In Box-Steffensmeier, J., Brady, H., and Collier, D. (Eds.), Oxford Handbook of Political Methodology. Volume 11 of Oxford Handbooks of Political Science. Oxford: Oxford University Press, pp. 432-455.

- Skrondal, A. and Rabe-Hesketh, S. (2008). Multilevel and related models for longitudinal data. In de Leeuw, J. and Meijer, E. (Eds.), *Handbook of Multilevel Analysis*. New York: Springer, pp. 275-299.
- Rabe-Hesketh, S., Skrondal, A. and Zheng, X. (2007). Multilevel structural equation modeling. In Lee, S.-Y. (Ed.), *Handbook of Latent Variable and Related Models*. Amsterdam: Elsevier, pp. 209-227.
- Rabe-Hesketh, S., Brammer, M. J. and Bullmore, E. T. (1997). Localising activation in a single subject using fMRI. In Dunn, G. and Everitt, B. S. (Eds.), *Recent Advances in the Analysis of Medical Data*. London: Arnold, pp. 309-325.
- Williams, S. C. R., Simmons, A., Andrew, C. M., Brammer, M. J., Bullmore, E. T. and Rabe-Hesketh, S. (1997). Brain activation studies using magnetic resonance imaging. In Bachelard, H. S. (Ed.), Magnetic Resonance Spectroscopy and Imaging in Neurochemistry, Volume 8 of Advances in Neurochemistry. New York: Plenum Press, pp. 241-265.
- Rabe, S., Mardia, K. V. and Boyce, J. F. (1994). Modelling microtexture. In Mardia, K. V. (Ed.), Statistics and Images, Volume 2 (Supplement to Journal of Applied Statistics). Abingdon: Carfax, pp. 385-406.

OTHER PUBLICATIONS (64)

frequently cited (ISI): *: ≥ 20 , **: ≥ 50 , ***: ≥ 100 , ****: ≥ 300

Articles in non-peer-reviewed journals (2)

- Rabe-Hesketh, S., and Pickles, A., and Skrondal, A. (2001). GLLAMM: A class of models and a Stata program. *Multilevel Modelling Newsletter* 13, 17-23. *
- Rabe-Hesketh, S., Pickles, A. and Taylor, C. (2000). sg129: Generalized linear latent and mixed models. Stata Technical Bulletin 53, 47-57. *

Software manual (1)

Rabe-Hesketh, S., Skrondal, A. and Pickles, A. (2004). GLLAMM Manual (Second Edition). U.C. Berkeley Division of Biostatistics Working Paper Series. Working Paper 160, pp. 1-140. See http://www.bepress.com/ucbbiostat/paper160/ (downloaded over 43,000 times) ****

Forewords and editorials (3)

- Rabe-Hesketh, S. (2015). Foreword to: J. R. Harring, L. Stapleton and S. N. Beretvas (Eds). Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications. Information Age Publishing, pp. vii-ix.
- Skrondal, A. and Rabe-Hesketh, S. (2008). Latent variable modeling (Editorial). Statistical Methods in Medical Research 17, 1-2.
- Rabe-Hesketh, S. (1997). Analysi of medical images (Editorial). Statistical Methods on Medical Research 6, 189-190.

Encyclopedia entries (8)

- Skrondal, A. and Rabe-Hesketh, S. (2005). Structural equation modeling: Categorical observed variables. In Everitt, B. and Howell, D. (Eds.), *Encyclopedia of Statistics in Behavioral Science*. New York: Wiley, Volume 4, pp. 1905-1910.
- Skrondal, A. and Rabe-Hesketh, S. (2005). State dependence. In Everitt, B. and Howell, D. (Eds.), *Encyclopedia of Statistics in Behavioral Science*. New York: Wiley, Volume 4, pp. 1895.

- Rabe-Hesketh, S. and Skrondal, A. (2005, 2010). Random effects models for discrete longitudinal data. In Everitt, B. and Palmer, C. (Eds.), *Encyclopaedic Companion to Medical Statistics* (Edition 1, pp. 288-291/Edition 2, pp. 379-382). London: Arnold/New York: Wiley.
- Skrondal, A. and Rabe-Hesketh, S. (2005, 2010). Generalized estimating equations. In Everitt, B. and Palmer, C. (Eds.), *Encyclopaedic Companion to Medical Statistics* (Edition 1, pp. 146-148/Edition 2, pp. 184-186). London: Arnold/New York: Wiley.
- Rabe-Hesketh, S. and Skrondal, A. (2005, 2010). Probit model. In Everitt, B. and Palmer, C. (Eds.), *Encyclopaedic Companion to Medical Statistics* (Edition 1, p. 276/Edition 2, p. 355). London: Arnold/New York: Wiley.
- Skrondal, A. and Rabe-Hesketh, S. (2005, 2010). Clustered binary data. In Everitt, B. and Palmer, C. (Eds.), *Encyclopaedic Companion to Medical Statistics*. (Edition 1, pp. 62-63/Edition, p. 80) London: Arnold/New York: Wiley.
- Rabe-Hesketh, S. (1998). Autocorrelation function. In *Encyclopedia of Biostatistics*. New York: Wiley. Vol. 1, pp. 229-230.
- Rabe-Hesketh, S. (1998). Backward shift operator and forward shift operator. In *Encyclopedia of Biostatistics*. New York: Wiley. Vol. 1, pp. 242-243.

Published conference papers (6)

- Zheng, X., Rabe-Hesketh, S. and Skrondal, A. (2006). Multilevel structural equation modeling of ordinal responses. 2006 Proceedings of the American Statistical Association. Alexandria, VA: American Statistical Association, pp. 1972-1979.
- Skrondal, A. and Rabe-Hesketh, S. (2004) Generalized linear latent and mixed models with composite links and exploded likelihoods. In Biggeri, A., Dreassi, E., Lagazio, C. and Marchi, M. (Eds.), *Proceedings of the 19th International Workshop on Statistical Modeling*. Florence, Italy, pp. 27-39.
- Skrondal, A. and Rabe-Hesketh, S. (2003). Generalized linear mixed models for nominal data. 2003 Proceedings of the American Statistical Association. Alexandria, VA: American Statistical Association, pp. 3931-3936.
- Rabe-Hesketh, S. and Pickles, A. (1999). Generalized linear latent and mixed models. In Friedl, H., Bughold, A. and Kauermann, G. (Eds.), Proceedings of the 14th International Workshop on Statistical Modelling, Graz, Austria, pp. 332-339.
- Mardia, K. V., Rabe, S. and Kent, J. T. (1995). Statistics, shape and images. In Titterington, D. M. (Ed.), IMA Proceedings on Complex Stochastic Systems and Engineering. Oxford: Clarendon Press, pp. 85-103.
- Kent, J. T., Mardia, K. V. and Rabe, S. (1994). Face description from laser range data. In *Proceedings on Mathematical Methods in Medical Imaging III*. Bellingham: SPIE, pp. 32-45.

Online tutorials and case studies (8)

- Lee^s, J., Feller, A. and Rabe-Hesketh, S. (2023). Instrumental Variables Analysis of Randomized Experiments with One-Sided Noncompliance. Online case study at https://joonholee.quarto.pub/ivone-sided-noncompliance.
- Ji^s, F., Xiao^s, X., Amanmyradova^s, A. and Rabe-Hesketh, S. (2023). Bayesian Structural Equation Modeling using blavaan. Online tutorial at https://mc-stan.org/users/documentation/case-studies/sem.html.
- Xiao^s, X, Ji^s, F. and Rabe-Hesketh, S. (2021). Introduction to Multilevel Logistic Regression Using rstanarm. Online tutorial at https://education-stan.github.io/tutorial_glmm.html.

- Ji^s, F., Amanmyradova^s, A. and Rabe-Hesketh, S. (2021). Bayesian Latent Class Models and Handling of Label Switching. Online case study at https://mc-stan.org/users/documentation/case-studies/Latent_class_case_study.html.
- Sim^s, N., Gin^s, B., Skrondal, A. and Rabe-Hesketh, S. (2019). A Dyadic Item Response Theory Model: A Stan case study. Online at https://mc-stan.org/users/documentation/case-studies/dyadic_irt_model.html.
- Furr^s, D., Lee^s, S. Y., Lee^s, J. and Rabe-Hesketh, S. (2016). Two-Parameter Logistic Item Response Model. Online tutorial at https://mc-stan.org/users/documentation/case-studies/tutorial_twopl.html.
- Lee^s, J., Feller, A. and Rabe-Hesketh, S. (2016). Model-based Inference for Causal Effects in Completely Randomized Experiments. Case study at https://mc-stan.org/users/documentation/case-studies/model-based_causal_inference_for_RCT.html.
- Lee^s, J., Sim^s, N., Ji^s, F. and Rabe-Hesketh, S. (2014). Introduction to multilevel modeling using rstanarm: A tutorial for education researchers. Online tutorial at https://mc-stan.org/users/documentation/case-studies/tutorial_rstanarm.html

Technical reports, letters, discussions, book reviews, and software reviews (9)

- Miranda, A., Rabe-Hesketh, S. and McDonald, J. W. (2012). Reducing bias due to missing values of the response variable by joint modeling with an auxiliary variable. *Department of Quantitative Social Science Working Paper*, No. 12-05. Institute of Education, University of London.
- Chung, Y., Rabe-Hesketh, S., Gelman, A., Liu, J. and Dorie, V. (2012). Avoiding boundary estimates in linear mixed models through weakly informative priors. *UC Berkeley Division of Biostatistics Working Paper Series*, No. 284. University of California, Berkeley, CA.
- Miranda, A. and Rabe-Hesketh, S. (2010). Missing ordinal covariates with informative selection. Department of Quantitative Social Science Working Paper, No. 10-16. Institute of Education, University of London.
- Heller, J. I., Curtis, D. A., Rabe-Hesketh, S., Clarke, C., Ramirez, A. and Verboncoeur, C. J. (2007). The effects of math pathways and pitfalls lessons on students' mathematics achievement. National Science Foundation Final Report.
- Skrondal, A. and Rabe-Hesketh, S. (2004). Book review of "Topics in Modelling of Clustered Data" edited by M. Aerts, H. Geys, G. Molenberghs and L. M. Ryan. *Statistics in Medicine* 23, 3552-3553.
- Wright, I., Rabe-Hesketh, S., Mellers, J., Bullmore, E. T. and Murray, R. (1999). Testing for laterality differences in regional brain volumes (Letter). *Archives of General Psychiatry* 57, 511.
- Landau, S. and Rabe-Hesketh, S. (1999). Software review of StatView. Statistical Methods in Medical Research 8, 337-341.
- Rabe, S. (1994). Discussion of Grenander, U. and Miller, M. I. Representation of knowledge in complex systems. *Journal of the Royal Statistical Society, Series B* 56, 590-591.
- Rabe, S. (1992). Discussion of Geyer C. J. and Thompson, E. A. Constrained Monte Carlo maximum likelihood for dependent data. *Journal of the Royal Statistical Society, Series B* 54, 694.

Abstracts in the ISI Web of Science (27)

See https://www.webofscience.com/wos/author/record/B-1643-2008 for details

- 2019-2022. Gelman, A. and Rabe-Hesketh, S (PIs). "Efficient and Flexible Tools for Complex Multilevel and Latent Variable Modeling in Education Research." Institute for Education Sciences. \$706,423. Co-Principal Investigator.
- 2019-2023. Harvey, A. (PI) "Implementing and Sustaining a Transdiagnostic Sleep and Circadian Treatment to Improve Severe Mental Illness Outcomes in Community Mental Health." National Institute of Mental Health (NIMH). \$784,067. Co-Investigator
- 2016-2020. Harvey, A. (PI) "Improving Depression Outcome by Enhancing Memory for Cognitive Therapy." National Institute of Mental Health (NIMH). \$767,813. Co-investigator.
- 2014-2019. Harvey, A. (PI) "A Transdiagnostic Sleep and Circadian Treatment to Improve Community SMI Outcomes." National Institute of Mental Health (NIMH) \$823,705. Co-investigator
- 2014-2016. Gelman, A., Rabe-Hesketh, S. and Carpenter, R. (PIs). "Solving Difficult Bayesian Computation Problems in Education Research Using Stan." U.S. Department of Education, Institute of Education Sciences (IES). \$750,981. Co-Principal Investigator.
- 2012-2017 Harvey, A. (PI) "Triple Vulnerability? Circadian Tendency, Sleep Deprivation and Adolescence." National Institute of Child Health and Development (NICHD). \$629,619. Co-investigator.
- 2012-2015 Harvey, A. (PI) "Improving Depression Outcome by Enhancing Memory for Cognitive Therapy." National Institute of Mental Health (NIMH). \$221,999. Co-investigator.
- 2011-2017 Wilson, M. and Rabe-Hesketh, S. (PIs). "Berkeley Research Experience and Methodology (BREM) Program." (Postdoctoral Fellowships.) U.S. Department of Education, Institute of Education Sciences (IES). \$681,680. Co-Principal Investigator.
- 2011-2014 Rijmen, F., von Davier, M., and Rabe-Hesketh, S. (PIs). "New Psychometric Models for 21st-Century Educational Survey Assessments." U.S. Department of Education, Institute of Education Sciences. \$1,197,301. Co-Principal Investigator.
- 2010-2013 Gelman, A., Rabe-Hesketh, S. (PIs), and Liu, J. "Practical Tools for Multilevel/Hierarchical Modeling in Education Research." U.S. Department of Education, Institute of Education Sciences. \$798,020. Co-Principal Investigator.
- 2008-2010 Dearden, L. (PI), Brown, J. J., Hansen, K., McDonald, J. W., Rabe-Hesketh, S. and Vignoles, A. "Administrative Data Methods, Inference and Network." Node of the National Center for Research Methods. Economic and Social Research Council (UK). £1,336,000 Coinvestigator (Director for Methodology).
- 2007-2011 Wilson, M. and Rabe-Hesketh, S. (PIs). "Berkeley Research Experience and Methodology (BREM) Program." (Postdoctoral Fellowships.) U.S. Department of Education, Institute of Education Sciences. \$624,400. Co-Principal Investigator.
- 2001-2004 McLoughlin, D. (PI), Brown, R., Rothwell, J., Knapp, M., Rabe-Hesketh, S., Edwards, D., Blanchard, M., Carter, J., Howard, R. and Philpot, M. "Clinical Effectiveness and Cost of Repetitive Transcranial Magnetic Stimulation Versus ECT in Severe Depression: A Multi-Centre Randomized Controlled Trial and Economic Analysis." NHS Health and Technology Assessment Programme (UK). £469,400. Co-investigator.
- 2002-2005 Ismail, K. (PI), Chalder, T., Thomas, S., Treasure, J., Schmidt, U., Rabe-Hesketh, S., Jones, R. and Patel, A. "A Randomised Controlled Trial of Cognitive Behaviour Therapy and Motivational Interviewing for People with Type I Diabetes Mellitus and Suboptimal Glycaemic Control." NHS Health and Technology Assessment Programme (UK). £568,989. Co-investigator.
- 2000-2003 Schmidt, U. (PI), Treasure, J., Eisler, I., Dare, C., Beecham, J. K., Rabe-Hesketh, S. "A Randomised Controlled Evaluation of the Cost Effectiveness of Cognitive-Behavioural Guided Self-Care Versus Family Therapy for Adolescent Bulimia Nervosa in a Catchment Area-Based Population." PPP Healthcare Medical Trust (UK). £197,000. Co-investigator.

Invited talks (excluding keynotes – see p.4) since 2003

- "SEM with extensions to multilevel and non-continuous data" SAMSI Spring 2021 program on Data Science in the Social and Behavioral Sciences, online, 2021. (Workshop opening talk)
- "A dyadic item response model" Department of Statistics, London School of Economics, London, UK, 2019. (Seminar)
- "Avoiding omitted variable bias in multilevel models" CTB/McGraw Hill, Monterey, CA, USA, 2015. (Seminar)
- "Using Warm's weighted likelihood estimates as response variable: An alternative to plausible values," 3rd Workshop on Statistical Methods in Cognitive Assessments, Fudan University, Shanghai, China, 2014.
- "Predicting outcomes using generalized linear mixed models" Eastern North American Region of the Biometric Society (ENAR) 2014 Spring Meeting, Baltimore, MD, USA, 2014.
- "How to write a successful statistics book" (with Anders Skrondal), *Joint Statistical Meetings*, Montreal, QE, Canada, 2013. (Roundtable discussion)
- "Autoregressive IRT model for longitudinal item analysis" 2nd Workshop on Statistical Methods in Cognitive Assessments, Columbia University, New York, USA, 2013.
- "Value-added modeling: Is it dangerous?" Berkeley School of Education, *University of California*, Berkeley, CA, USA, 2013. (Seminar)
- "Protective estimation of random intercept logistic regression when data are not missing at random," 21st Australian Statistical Conference, Adelaide, SA, Australia, 2012.
- "Protective estimation of random intercept logistic regression when data are not missing at random," Joint Statistical Meetings, San Diego, CA, USA, 2012.
- "Automatic protection against sample selection bias in models for binary panel data." *Institute of Education*, University of London, UK, 2012. (Seminar)
- "Multilevel latent variable modeling applied to a sex education study and more." Graduate School of Education, *Harvard University*, Cambridge, MA, USA, 2012. (Seminar)
- "Modeling perspectives on deriving teacher value added from student test scores," *Grading Teachers:* Measures, Media & Policies, Public Forum, University of California, Berkeley, CA, USA, 2010.
- "Missing covariates with informative selection" (with Alfonso Miranda), *Institute of Education*, University of London, UK, 2009. (Seminar)
- "Prediction in multilevel logistic regression." London School of Hygiene and Tropical Medicine, London, UK, 2009. (Seminar)
- "Multilevel structural equation modeling: Comparing frameworks." XXIX International Congress of Psychology 2008 (ICP 2008), Berlin, Germany, 2008.
- "Multilevel Structural Equation Modeling." Department of Statistics and Econometrics, *University of Geneva*, Geneva, Switzerland, 2008. (Seminar)
- "Prediction in multilevel logistic regression." Department of Biostatistics, *University of Washington*, Seattle, WA, USA, 2008. (Seminar)
- "Generalized linear latent and mixed models for multilevel IRT." Educational Testing Service (ETS), Princeton, NJ, USA, 2008.
- "Multilevel modeling of categorical data." Methods of Analysis Program in the Social Sciences, Stanford University, CA, USA, 2008. (Seminar)
- "Comparison of methods for handling endogenous covariates in longitudinal data." *Institute of Education*, University of London, UK, 2008. (Seminar)

- "Multilevel structural equation modeling." Quantitative Methods in the Social Sciences Colloquium, University of California, Santa Barbara, CA, USA, 2007. (Seminar)
- "Multilevel modeling of complex survey data." *Institute of Education*, University of London, UK, 2007. (Seminar)
- "Multilevel models for health services research." Health Services & Policy Analysis Doctoral Seminar, School of Public Health, University of California, Berkeley, 2007. (Seminar)
- "Multilevel and latent variable modeling of complex survey data." 34th Annual Meeting of the Statistical Society of Canada, London, ON, Canada, 2006.
- "Multilevel structural equation modeling." Economic and Social Research Council Research Methods Festival. Oxford University, Oxford, UK, 2006.
- "Multilevel Structural Equation Modeling." Institute of Education, University of London, UK, 2006. (Seminar)
- "Multilevel and latent variable modeling of complex survey data." International Meeting of the Psychometric Society. Tilburg, the Netherlands, 2005.
- "Generalized linear latent and mixed models for nominal responses". Division of Biostatistics, University of California, San Francisco, CA, USA, 2005. (Seminar)
- "Generalized linear latent and mixed models." Class on Structural Equation Modeling by Ken Bollen. University of North Carolina, Chapel Hill, NC, USA, 2005. (Guest lecture)
- "On the use of composite links in multilevel latent variable models." 24th Biennial Conference of the Society for Multivariate Analysis in the Behavioral Sciences. Jena, Germany, 2004.
- "Generalized linear latent and mixed models". Annual Meeting of the National Council on Measurement in Education, San Diego, CA, USA, 2004.
- "Multilevel modeling of discrete responses". Center on Quantitative Social Science Research, University of California, Davis, CA, USA, 2004. (Seminar)
- "Latent variable models for a cluster-randomized trial of sex education with drop-out". Center for AIDS Prevention Studies. San Francisco, CA, USA, 2004. (Seminar)
- "Multilevel and mixed models in epidemiology." Division of Epidemiology, School of Public Health, University of California, Berkeley, CA, USA, 2004. (Seminar)
- "Multilevel modeling of polytomous data and rankings: Application to election research". Neyman Semminar. Department of Statistics, University of California, Berkeley, CA, USA, 2003. (Seminar)
- "Generalized linear latent and mixed modeling". California Center for Population Research and Department of Sociology, University of California, Los Angeles, CA, USA, 2003. (Seminar)
- "Generalized linear latent and mixed modeling". Graduate School of Education and Information Studies, University of California, Los Angeles, CA, USA, 2003. (Seminar)
- "Multilevel models for nominal data". Inter-Faculty Statistics Seminar, University of Southampton, UK, 2003. (Seminar)
- "Multilevel modeling of ordered and unordered categorical responses". Department of Epidemiology and Biostatistics, Institute of Child Health, London, UK, 2003. (Seminar)

Invited courses and workshops since 2003

- 4-day course on "Multilevel and longitudinal modeling" (with Anders Skrondal). Center for Educational Measurement, University of Oslo, Norway, 2016, 2018 and 2022.
- 2-day course on "Multilevel and longitudinal modeling." Institute of Education, University of London, UK, 2012.

- 3-day course on "Applied Longitudinal Data Analysis" (with Anders Skrondal), University of Oslo School in Biostatistics, Oslo, Norway, 2010.
- 2-day course on "Multilevel and longitudinal modeling" (with Anders Skrondal). Institute of Education, University of London, UK, 2009, 2010 and 2011.
- Pre-conference course on "Multilevel modeling of longitudinal survey data" (with Anders Skrondal). International Methodology Symposium, Statistics Canada, Ottawa, ON, Canada, 2009.
- Pre-conference course on "Generalized linear latent and mixed models" (with Anders Skrondal). XXIV International Biometric Conference (IBC2008), Dublin, Ireland, 2008.
- Pre-conference course on "Generalized linear latent and mixed models" (with Anders Skrondal).

 Annual Meeting of the Norwegian Statistical Association, Tromsø, Norway, 2007.
- Continuing Education Course on "Generalized linear latent and mixed models" (with Anders Skrondal). *Joint Statistical Meetings* (sponsored by the Biometric Section of American Statistical Association), Seattle, WA, USA, 2006.
- 5-day course on "Multilevel Modeling using Stata" (with Anders Skrondal). 2006 Summer Update Program in Public Health and Epidemiology. Instituto Nacional de Salud Pública. Cuernavaca, Morelos, Mexico, 2006.
- Pre-conference course on "Longitudinal Modelling for Survey Data." *Methodology of Longitudinal Surveys: An International Conference.* University of Essex, Colchester, UK, 2006.
- Tutorial on GLLAMM (with Anders Skrondal). Biennial Conference of the "Fachgruppe Methoden und Evaluation" of the German Psychological Society. University of Münster, Germany, 2005.
- Tutorial on "Generalized latent variable modeling of complex survey data" (with Anders Skrondal). Workshop on Latent Variable Models and Complex Survey Data. Montreal, Canada, 2005.
- Workshop on "Generalized linear latent and mixed models" (with Anders Skrondal). 2005 International Chinese Statistical Association Applied Statistics Symposium. Washington DC, USA, 2005.
- 5-day course on "Multilevel Modeling using the Stata program gllamm" (with Anders Skrondal). 2005 Summer Update Program in Public Health and Epidemiology. Instituto Nacional de Salud Pública. Cuernavaca, Morelos, Mexico, 2005.
- Workshop on "Advances in latent variable modeling" (with Anders Skrondal). Theme year on Latent Variable Models in the Social Sciences. Statistical and Applied Mathematical Sciences Institute. Research Triangle Park, NC, USA, 2005.
- Workshop on "Multilevel modeling of discrete responses". Center on Quantitative Social Science Research, University of California, Davis, CA, USA, 2004.
- Conference workshop on "Generalized linear latent and mixed models" (with Anders Skrondal). 3rd North American Stata Users' Group Meeting. Boston, MA, USA, 2004.
- Continuing Education Course on "Generalized linear latent and mixed models" (with Anders Skrondal and Andrew Pickles). *Joint Statistical Meetings* (sponsored by the Biometric Section of ASA), Toronto, Canada, 2004.
- Pre-conference course on "Generalized linear latent and mixed modeling" (with Anders Skrondal). 19th International Workshop on Statistical Modelling. Florence, Italy, 2004.
- Pre-conference workshop on "Multilevel and latent variable modeling of discrete data" (with Anders Skrondal). 69th Annual Meeting of the Psychometric Society. Pacific Grove (Monterey), CA, USA, 2004.
- Pre-conference course on "Multilevel and latent variable modeling using gllamm" (with Andrew Pickles and Anders Skrondal). *International Biometric Society Nordic Region Conference*, Uppsala, Sweden, 2003.

Short-course on "Latent variable modelling". Centre for Applied Statistics, University of Lancaster, UK. 2003.

Selected contributed/second-authored talks since 2003

student: s , postdoc: p

- Ji^s, F., Rabe-Hesketh, S. and Skrondal, A. Diagnosing and handling common violations of missing at random (MAR). *International Meeting of the Psychometric Society*. Online, 2020.
- Lee^s, J.-H., Rabe-Hesketh, S, and Feller, A. Bayesian deconvolution for measuring treatment effect heterogeneity in multisite sites. *International Meeting of the Psychometric Society*. Virtual, 2020.
- Lee^s, J.-H. and Rabe-Hesketh, S. Sensitivity of Bayesian quantile regression to the choice of scale parameter. *International Meeting of the Psychometric Society*. Santiago, Chile, 2019.
- Sim^s, N., Rabe-Heskseth, S. and Skrondal, A. Estimating random intercept models With cluster-endogenous covariates. *International Meeting of the Psychometric Society*. Columbia University, New York, NY, 2018.
- Gin^s, B., Sim^s, N., Skrondal, A. and Rabe-Hesketh, S. A dyadic item response theory model. International Meeting of the Psychometric Society. Columbia University, New York, NY, 2018.
- Merkle, E., Furr^s, D. and Rabe-Hesketh, S. Bayesian model assessment: Use of conditional vs marginal likelihoods. *International Meeting of the Psychometric Society*. Columbia University, New York, NY, 2018.
- Skrondal, A. and Rabe-Hesketh, S. The role of conditional likelihoods in latent variable modeling. [Presidential Address]. *International Meeting of the Psychometric Society*. University of Zurich. Zurich, Switzerland, 2017.
- Bates^s, M. D., Castellano^p, K., Rabe-Hesketh, S. and Skrondal, A. Handling correlations between covariates and random slopes in HLMs. Annual Meeting of the National Council on Measurement in Education. Philadelphia, PA, 2014.
- Skrondal, S. and Rabe-Hesketh, S. Protective estimation of panel models when data are not missing at random. [Invited talk]. Methods for Longitudinal Data Analysis in the Social Sciences, London School of Economics, UK, 2014.
- Jeon^p, M., Kaufman, C. and Rabe-Hesketh, S. Monte Carlo local likelihood for estimating generalized linear mixed models. *International Meeting of the Psychometric Society*. Arnhem, the Netherlands, 2013.
- Jeon^p, M., Rijmen, F. and Rabe-Hesketh, S. A Bifactor multitrait-multimethod model for educational assessments. Annual Meeting of the National Council on Measurement in Education. San Francisco, CA, USA, 2013.
- Jeon^s, M. and Rabe-Hesketh, S. An autoregressive IRT growth model for longitudinal item analysis (seminar). Educational Testing Service, Princeton, NJ, 2012.
- Ayers^p, E. and Rabe-Hesketh, S. Cognitive diagnosis models with longitudinal growth curves for skill knowledge (invited talk). *Joint Statistical Meetings*. Miami Beach, FL, USA, 2011.
- Chung^p, Y., Rabe-Hesketh, S., Gelman, A., Liu, J., and Dorie, V. Avoiding boundary estimates in hierarchical linear models through weakly informative priors. *International Meeting of the Psychometric Society*. Hong Kong, 2011.
- Ayers^p, E. and Rabe-Hesketh, S. Cognitive diagnosis models with longitudinal growth curves for skill knowledge. 17th International Meeting of the Psychometric Society. Hong Kong, 2011.

- Skrondal, A. and Rabe-Hesketh, S. Missing data and consistency for a latent variable model widely used in IRT and longitudinal data analysis (invited talk). *International Meeting of the Psychometric Society*. Hong Kong, 2011.
- Rabe-Hesketh, S. and Miranda, A. Combining survey and administrative data to deal with missing ordinal covariates with informative selection. 4th Economic and Social Research Council (ESRC) Research Methods Festival. St Catherine's College, Oxford, UK, 2010.
- Ayers^p, E. and Rabe-Hesketh, S. Latent regression of skill knowledge parameters in cognitive diagnosis models. 75th Annual Meeting of the Psychometric Society, The University of Georgia, GA, USA, 2010.
- Feldman^p, B. and Rabe-Hesketh, S. Modeling non-informative dropout in longitudinal data. *International Meeting of the Psychometric Society*, St John's College, Cambridge, UK 2009.
- Cho^p, S.-J. and Rabe-Hesketh, S. Shrinkage estimation of item parameters in item response theory. *International Meeting of the Psychometric Society*, St John's College, Cambridge, UK 2009.
- Zheng^s, X. and Rabe-Hesketh (2009). School effects, course taking, and mathematics learning: Perspectives from the National Assessment of Educational Progress. *American Educational Research Association*, San Diego, CA.
- Cho^p, S.-J. and Rabe-Hesketh, S. Alternating imputation posterior estimation of models with crossed random effects. 73rd Annual Meeting of the Psychometric Society, Durham, NH, USA, 2008.
- Rabe-Hesketh, S. and Skrondal, A. Prediction in multilevel logistic regression. Fall North American Stata Users Group Meeting, San Francisco, CA, USA, 2008.
- Jeon^s, M. and Rabe-Hesketh, S. Multilevel modeling of educational longitudinal data with crossed random effects. Fall North American Stata Users Group Meeting, San Francisco, CA, 2008.
- Rabe-Hesketh, S. Prediction for multilevel models. *UK Stata Users Group Meeting*, London, UK, 2008.
- Skrondal, A. and Rabe-Hesketh, S. Generalised multilevel structural equation modeling (keynote lecture). 23rd Workshop on Item Response Theory, University of Twente, Enschede, the Netherlands, 2007.
- Skrondal, A. and Rabe-Hesketh, S. Prediction in generalised linear mixed models (invited talk). Meeting on Recent Advances in Multilevel Modelling, *Royal Statistical Society*, London, 2007.
- Rabe-Hesketh, S. and Skrondal, A. Multilevel modeling of survey data. West Coast Stata Users Group Meeting, Marina del Rey, CA, USA, 2007.
- Skrondal, A. and Rabe-Hesketh, S. Generalised multilevel structural equation modeling (keynote lecture). Sixth International Amsterdam Conference on Multilevel Modeling, Amsterdam, the Netherlands, 2007.
- Skrondal, A. and Rabe-Hesketh, S. Some recent developments in latent variable modelling (keynote lecture) 21st Nordic Conference on Mathematical Statistics, Rebild, Denmark, 2006.
- Zheng^s, X. and Rabe-Hesketh, S. Multilevel latent variable modeling: Applications to a reading achievement study. *American Educational Research Association*, San Francisco, CA, USA, 2006.
- Zheng^s, X. and Rabe-Hesketh, S. Multilevel structural equation model for ordinal responses. *Joint Statistical Meetings*, Seattle, WA, USA, 2006.
- Skrondal, A. and Rabe-Hesketh, S. Multilevel latent growth modeling with dropout depending on the latent trait: A cluster randomized sex education intervention (invited talk). 14th International Meeting of the Psychomtric Society, Tilburg, the Netherlands, 2005.
- Rabe-Hesketh, S. and Skrondal, A. Pseudo maximum likelihood estimation of multilevel generalized linear models. Workshop on Latent Variable Models and Complex Survey Data. Montreal, Canada, 2005.

- Miranda, A. and Rabe-Hesketh, S. Estimation of ordinal response models, accounting for sample selection bias. 11th UK Stata Users Group Meeting, London, UK, 2005.
- Skrondal, A. and Rabe-Hesketh, S. Generalized linear latent and mixed models with composite links and exploded likelihoods (keynote lecture). 19th International Workshop on Statistical Modelling, Florence, Italy, 2004.
- Rabe-Hesketh, S. and Skrondal, A. Empirical Bayes prediction in generalized linear mixed models. 2nd International Biometric Society Conference of the Eastern Mediterranean Region, Antalya, Turkey, 2003.
- Rabe-Hesketh, S., Pickles, A. and Skrondal, A. Generalized latent class modeling using gllamm. 2nd North American Stata Users' Group Meeting, Boston, MA, 2003.
- Rabe-Hesketh, S. and Skrondal, A. Model diagnostics in gllamm. 9th UK Stata Users' Group Meeting, London, UK, 2003.
- Skrondal, A. and Rabe-Hesketh, S. Generalized linear mixed models for nominal data. *Joint Statistical Meetings of the American Statistical Association*. San Francisco, CA, USA, 2003.
- Skrondal, A. and Rabe-Hesketh, S. Generalized multilevel survival analysis. Fourth International Amsterdam Conference on Multilevel Analysis. Amsterdam, the Netherlands, 2003.

Teaching

Berkeley School of Education, University of California, Berkeley

- Data Analysis in Education Research I, Fall 2004-2007
- Data Analysis in Education Research II, Spring 2004-2023
- Hierarchical and Longitudinal Modeling, Fall 2005, Spring 2007, Fall 2009, 2011, 2013, 2015-2018, 2020-2022
- Hierarchical/Multilevel Modeling (Research Group), Fall & Spring 2004-2023

PhD Training Programme at the Institute of Psychiatry, University of London

- Psychometric Test Theory, 1999, 2000, 2002
- Multilevel Modeling, 2001
- Data Description and Presentation, 1994-1998
- Statistical Inference, 1994-1998
- Introductory Statistics, 1999
- Statistics using SPSS, 1999-2003
- Power and Sample Size, 1999-2003
- Epidemiology using Stata, 2000

Doctorate in Clinical Psychology at the Institute of Psychiatry, University of London

- Psychometric Test Theory, 1997-2003
- Health Care Trials, 1997-2003

MSc and Diploma in Therapy with Couples at the Institute of Psychiatry, University of London

• Critical Appraisal of Research Papers, 1997-2001

MBBS (Undergraduate Medicine) at King's College, University of London

• Medical Statistics, 1995-1999

Reviewing

Selected Statistical Journals (out of 34)

- Journal of the Royal Statistical Society (Series A, B, and C)
- Journal of the American Statistical Association
- The American Statistician
- Biometrika
- Biometrics
- Biostatistics
- Statistical Methods in Medical Research
- Statistics in Medicine
- Psychometrika
- Journal of Educational and Behavioral Statistics
- Psychological Methods

Selected Journals in other Areas (out of 19)

- Science
- Demography
- American Sociological Review
- American Educational Research Journal
- Educational Evaluation and Policy Analysis
- Economics Letters

Grant awarding agencies

- National Science Foundation (NSF), USA
- Economic and Social Research Council (ESRC), UK
- Institute of Education Sciences (IES), USA
- Medical Research Council (MRC), UK
- Wellcome Trust, UK
- Estonian Science Foundation (ESF), Estonia

Professional affiliations

- Elected member of the International Statistical Institute
- Elected member of the National Academy of Education
- Fellow of the American Statistical Association
- Fellow of the Royal Statistical Society
- Honorary member of the European Association of Methodology
- Member of the International Biometric Society
- Member of the Psychometric Society
- Member of the National Council on Measurement in Education
- Member of the American Educational Research Association