

Gerko Vink

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G.Vink@uu.nl | [Web](#) | [Linkedin](#) | [GitHub](#)

UTRECHT UNIVERSITY

Department of Methodology and Statistics

Padualaan 14, room B.110

Utrecht University

3584 CH Utrecht

Education

- 2015 **PhD**, *Utrecht University - Department of Methodology and Statistics*, Utrecht, Defended on 13 March 2015.
Title of dissertation: *Restrictive imputation of incomplete survey data*. [pdf](#)
- 2009 **MSc Methodology and Statistics in Psychology (with honours)**, *Leiden University*, Leiden.
- 2008 **BSc in Psychology**, *Leiden University*, Leiden.
- 2005 – 2008 **Photography**, *Royal Academy of Arts*, The Hague.

Professional experience

- 2020 – now **Associate Professor / UHD**, *Department of Methodology and Statistics*, Utrecht University.
June 2020- present
- 2015 – 2020 **Assistant Professor / UD**, *Department of Methodology and Statistics*, Utrecht University.
September 2015 - May 2020
- 2016 – 2017 **Adjunct Associate Research Scholar**, *Applied Statistics Center*, Columbia University, New York.
February 2016 - January 2017
- 2014 – 2015 **Postdoctoral Fellow**, *Department of Methodology and Statistics*, Utrecht University.
September 2014 - July 2015
- 2012 – 2014 **Lecturer [.5 fte]**, *Department of Methodology and Statistics*, Utrecht University.
September 2012 - August 2014
- 2012 – 2014 **AIO (doctoral candidate) [.5 fte]**, *Department of Methodology and Statistics*, Utrecht University, and *Department of Methodology and Quality*, Statistics Netherlands (CBS).
September 2012 - August 2014

2009 – 2012 **AIO (doctoral candidate)**, *Department of Methodology and Statistics*, Utrecht University, and *Department of Methodology and Quality*, Statistics Netherlands (CBS).
September 2009 - August 2012

Management positions

2020 – now **Member Programmaraad ADS master**, Applied Data Science, Utrecht University.

2020 – now **Coordinator ADS education**, Department of Methodology and Statistics, School of Social Sciences, Utrecht University.

2012 – 2019 **Project Coordinator**, *Interactive digital education*, Research master program *Methodology and Statistics for the Behavioural, Biomedical and Social Sciences*, Faculty of Social Sciences, Utrecht University.

2017 – now **PhD counselor (mentor)**, Department of Methodology and Statistics, Faculty of Social Sciences, Utrecht University.

2012 – 2019 **Project Coordinator**, *Interactive digital education*, Research master program *Methodology and Statistics for the Behavioural, Biomedical and Social Sciences*, Faculty of Social Sciences, Utrecht University.

2015 – 2018 **Educational Advisor**, *Programme Advisory Committee*, Research master program *Methodology and Statistics for the Behavioural, Biomedical and Social Sciences*, Faculty of Social Sciences, Utrecht University.

2013 – 2016 **Coordinator**, *Minor Methodology and Statistics in the Social and Behavioural Sciences*, Faculty of Social Sciences, Utrecht University.

2012 – 2016 **Student counselor (tutor)**, Research master program *Methodology and Statistics for the Behavioural, Biomedical and Social Sciences*, Faculty of Social Sciences, Utrecht University.

2012 – 2015 **Educational Representative**, *Educational Advisory Committee*, Research master program *Methodology and Statistics for the Behavioural, Biomedical and Social Sciences*, Faculty of Social Sciences, Utrecht University.

Received research funding \geq €5.000

2020 **Project lead**, *Shinymice: model building and evaluation for multiple imputation*, For €25,000, June 2020 - December 2020.

2020 **Investigator**, *Machine Learning for Eye-tracking data*, For €15,000, DoY, Utrecht, the Netherlands.
February 2020 - December 2020

2019 **Investigator**, *Multiple imputation of oil production rate time series*, For €5,000, TNO, the Netherlands.
July 2019 - December 2019

2014 **Investigator**, *Multiple imputation of Parent Management Training Oregon (PMTO) data*, with Stef van Buuren (UU/TNO) for €12,000 (my share: €6,000), Maastricht University, the Netherlands.
November 2014 - December 2014

- 2013 **Investigator**, *Multilevel Bayesian estimation of multiply imputed social-educational advantage scores over time*, with Stef van Buuren (UU/TNO) for €42,477 (my share: €21,238.50), Australian Curriculum, Assessment and Reporting Authority, Sydney, Australia.
March 2013 - August 2013
- 2012 **Investigator**, *Multiple imputation of large register data with multilevel structures*, with Stef van Buuren (UU/TNO) for €53,503 + €5,000 bonus (my share: €29,251.50), Australian Curriculum, Assessment and Reporting Authority, Sydney, Australia.
August 2012 - December 2012

Relevant professionalisation

- 2020 **Corporate Entrepreneurship**, *Columbia Business School*, New York, NY, USA.
- 2016 **Big Data and Social Analytics**, *Massachusetts Institute of Technology*, Cambridge, MA, USA.

Teaching experience

Undergraduate courses

- *2019 – now **Fundamental Techniques in Data Science**, *Utrecht University*, Course coordinator, rated 8.7/10.
- *2015 – now **Missing Data Theory and Causal Effects**, *Utrecht University*, Course coordinator, rated 4.7/5.
- 2018 Analysis of Behavioural Data, University College Utrecht
- 2016 – 2018 Methods & Statistics 2, Utrecht University
- 2012 – 2018 Conducting a Survey, Utrecht University
- 2011 – 2015 Applied Multivariate Statistics, University College Utrecht
- 2013 Methods & Statistics I, Utrecht University
- 2013 Ondersteuning Leeronderzoek, Utrecht University
- 2009 – 2011 Methods & Statistics I, University College Utrecht
- 2008 – 2009 Inleiding in de Methoden en Technieken, Leiden University
- 2008 – 2009 Psychometrie, Leiden University
- 2008 – 2009 Experimenteel en Correlationeel Onderzoek, Leiden University
- 2008 – 2009 Toetsende statistiek, Leiden University
- 2008 – 2009 Multivariate Data Analyse, Leiden University

Graduate courses

- *2017 – now **Markup Languages and Reproducible Programming in Statistics**, *Utrecht University*, Course coordinator, rated 9.8/10.
- 2013 – now Master Thesis Supervision, Utrecht University
- 2012 – 2016 Research Seminar I, Utrecht University
- 2014 Research Seminar II, Utrecht University

- 2012 – 2015 Statistical Programming in R elective course, Utrecht University
- 2009 – 2013 Imputation Techniques, Utrecht University
 - 2012 Statistical Programming in R, Utrecht University
 - 2009 Applied Multivariate Data Analysis, Leiden University
- Post-graduate courses
 - *2016 Multiple Imputation in Practice, Utrecht University [* Course coordinator]
 - 2013 Applied Multiple Imputation using SPSS and R, Utrecht University
- Summerschool courses
 - *2016 – now **Data Science: Multiple Imputation in Practice**, *Utrecht University*, Course coordinator, rated 4.65/5.
 - *2015 – now **Data Science: Statistical Programming in R**, *Utrecht University*, Course coordinator, rated 4.62/5.
 - 2018 Advanced Multilevel Analysis, Utrecht University
 - 2014 – 2016 Advanced Issues in Survey Design and Analysis
 - 2013 Survey Research: Statistical Analysis and Estimation

Supervised students

- 2020 Jihane Cherif. Undergraduate Thesis
- 2019 Hanne Oberman. Graduate Thesis
- 2019 Lonneke Theeuwes. Undergraduate Thesis
- 2018 Arjan Huizing. Graduate thesis
- 2016 Rianne Schouten. Graduate thesis
- 2016 Xynthia Kavelaars. Graduate thesis
- 2016 Arnold Lau (Columbia University). Graduate thesis
- 2015 Lisanne Rijnveld. Research Master paper
- 2015 Wouter Smink. Graduate thesis
- 2015 Tom Bergkamp. Undergraduate thesis
- 2015 Henk Jan Stevens. Graduate thesis
- 2014 Bo Kuiper. Graduate thesis
- 2014 Laura Boeschoten. Graduate thesis

Phd students

- 2018 – now Mingyang Cai [ongoing project]
- 2016 – 2020 Duco Veen
- 2017 – 2019 Rianne Schouten

Invited courses / workshops

- 2020 Multiple imputation in practice [with Stef van Buuren], Data Science Rijkstrainees, The Hague, the Netherlands.

- 2020 Statistical Programming with R, Data Science Rijkstrainees, January 16, The Hague, the Netherlands.
- 2019 Statistical computation with R, Wageningen Economic Research, September 17; 24&25, The Hague, the Netherlands.
- 2019 Statistical programming with R, Wageningen Economic Research, September 3; 10&11, The Hague, the Netherlands.
- 2019 Advanced Multilevel Imputation [with Stef van Buuren], 12th International Multilevel Conference, April 8, Utrecht
- 2018 Introduction to Statistics with R, September 3-5, Utrecht
- 2018 Introduction to Statistics with R, July 2-4, Utrecht
- 2017 Introduction to R: How to get started, August 28, Utrecht
- 2017 Multiple imputation in R. RECSM / Pompeu Fabra, June 18-29, Barcelona, Spain.
- 2017 Statistical programming in R. NorthWest University, March 14-17, Vanderbijlpark, South Africa.
- 2017 Multiple imputation in practice [with Stef van Buuren]. ETH Zürich, February 23-24, Zürich, Switzerland.
- 2017 Missing value imputation [with Stef van Buuren]. University of Zürich, February 20-21, Zürich, Switzerland.
- 2016 Multiple Imputation in Practice. TU Berlin/Berlin HECOR [with Stef van Buuren], September 12-14, Berlin, Germany.
- 2015 Statistical programming with R. Radboud University, December 1, 2015, Nijmegen, the Netherlands.
- 2015 Applied multiple imputation in R [with Stef van Buuren]. Pre-conference course at the 2015 conference of the International Society for Clinical Biostatistics, August 23, 2015, Utrecht, the Netherlands.
- 2015 Handling missing data in R with MICE [with Stef van Buuren]. Tutorial course at the MissData conference. June 17, 2015, Rennes, France
- 2015 Applied multiple imputation with SPSS. Course within the Boerhaave Clinical Trials educational series. April 14, 2015, Leiden, the Netherlands
- 2015 Working with R: a full day crash-course. Pre-conference course for the 10th International Multilevel Conference, April 7, 2015, Utrecht, the Netherlands
- 2013 Incomplete data workshop: Flexible Imputation of Missing Data [with Shahab Jolani] , 1st Southern European Conference on Survey Methodology, December 2013, Barcelona, Spain
- 2013 Applied Multiple Imputation in R [with Stef van Buuren]. CE Course, Joint Statistical Meetings, Aug 4, 2013, Montreal, Canada
- 2013 Multiple imputation for multilevel data using MICE [with Stef van Buuren]. Pre-conference course. March 26, 2013, Utrecht
- 2011 Pre-conference workshop "How to deal with missing data". Mplus user conference, October 2011, Utrecht (with invited contributions by Stef van Buuren and Craig Enders [UCLA])

Invited presentations and keynotes

- 2019 CMstatistics, Advances in complex data modeling, December 16, London, United Kingdom
- 2019 University of Padua, Advances in Multilevel and Longitudinal Modelling, January 28, Padua, Italy
- 2018 Leiden University, Methods & Statistics Alumni Event, November 22, Leiden, the Netherlands
- 2017 Tilburg University, Statistical colloquium, May 9, Tilburg, the Netherlands
- 2017 ETH Zürich, Statistical symposium, February 22, Zürich, Switzerland
- 2016 Joint Statistical Meetings, August 2016, Chicago, IL, USA, topic contributed session
- 2015 Social Sciences M&S Power Snacks, November 2015, Utrecht, the Netherlands
- 2014 Annual symposium of the Dutch-speaking platform for survey research, 19 May 2014, Amsterdam, the Netherlands
- 2013 Meeting on multiple imputation of multilevel data, June 2013, London, UK
- 2011 Second meeting of the Dutch Mplus users group, May 2011, Utrecht, the Netherlands
- 2011 ISED research dagen 2011, November 2011, Utrecht, the Netherlands

Contributed presentations

- 2015 10th International Multilevel Conference, April 2015, Utrecht, the Netherlands
- 2014 IOPS Graduate School Winter Conference, Amsterdam, the Netherlands
- 2014 Joint Statistical Meetings, August 2014, Boston, MA, USA
- 2014 European Congress of Methodology, July 2014, Utrecht, the Netherlands
- 2014 18th ISA world Congress of Sociology, July 2014, Yokohama, Japan
- 2013 1st Southern European Conference on Survey Methodology, December 2013, Barcelona, Spain
- 2012 Fifth European Congress of Methodology, July 2012, Santiago de Compostela, Spain
- 2010 CBS Methodologiedagen, Heerlen, the Netherlands

Review activities

- 2010 – now Recurring article and book reviewer for at least:
R Journal, Springer Nature, PLOS one, Psychometrika, Sociological Methods and Research, Biometrics, JRSS Series C, MDPI Data, Biometrical Journal, European Journal on Criminal Policy and Research, Journal of Educational and Behavioral Statistics, CRC Press / Taylor & Francis, Springer, Psychological Test and Assessment Modeling, Survey Methodology, Statistica Neerlandica, The Spanish Journal of Psychology, International Journal of Geo-Information

Editorships

- 2016 – now Recurring article editor for Sage Open

Development

2018 – now SHINYmice: Model building and evaluation for Multiple Imputation. Author.
 2017 – now BAMi: Benchmarking and Assessment for Multiple Imputation. Creator.
 2016 – now parLMICE in R. Creator.
 2016 – now ampute in R. Author.
 2010 – now mice in R. Core Developer and GitHub Collaborator
 2013 – 2015 correlate in R. Author.
 other Programming and Scripting experience: Python, R, HTML, C++, \LaTeX , markdown.

Publications

- [1] Cai, M. and **Vink, G.** (2022). A note on imputing squares via polynomial combination approach. *Computational Statistics*. doi: 10.1007/s00180-022-01194-8.
- [2] Volker, T. B. and **Vink, G.** (2021). Anonymiced shareable data: Using mice to create and analyze multiply imputed synthetic datasets. *Psych*, 3(4):703–716.
- [3] Gopalakrishna, G., Wicherts, J. M., **Vink, G.**, Stoop, I., Van den Akker, O., Riet, G. t., and Bouter, L. Prevalence of responsible research practices and their potential explanatory factors: a survey among academic researchers in the netherlands, (2021). URL osf.io/preprints/metaarxiv/xsn94.
- [4] Gopalakrishna, G., Riet, G. t., **Vink, G.**, Stoop, I., Wicherts, J. M., and Bouter, L. Prevalence of questionable research practices, research misconduct and their potential explanatory factors: a survey among academic researchers in the netherlands, (2021). URL osf.io/preprints/metaarxiv/vk9yt.
- [5] Wisse, R., Muijzer, M., Hoven, C., van Luijk, C., **Vink, G.**, and Frank, L. A machine learning approach to identify predictors of adverse events in posterior lamellar keratoplasty; a nationwide registry study. In *ACTA OPHTHALMOLOGICA*, volume 99, pages 6–6. WILEY 111 RIVER ST, HOBOKEN 07030-5774, NJ USA, (2021).
- [6] Claessens, J. L., Godefrooij, D. A., **Vink, G.**, Frank, L. E., and Wisse, R. P. (2021). Nationwide epidemiological approach to identify associations between keratoconus and immune-mediated diseases. *British Journal of Ophthalmology*.
- [7] Oberman, H. I., van Buuren, S., and **Vink, G.** (2021). Missing the point: Non-convergence in iterative imputation algorithms. *arXiv preprint arXiv:2110.11951*.
- [8] **Vink, G.** (2020). mice: Combining inferences after imputation with mice in *r*. https://www.gerkovink.com/MiceVignettes/Combining_inferences.html.
- [9] **Vink, G.** and Van Buuren, S. (2019). The best prediction can be the worst imputation. https://www.gerkovink.com/need_for_uncertainty/text1.html.
- [10] **Vink, G.** (2019). prepr: A self-paced guided crashcourse in basic scripting with *r*. <https://www.gerkovink.com/preprR>.
- [11] Schouten, R. M. and **Vink, G.** (2018). The dance of the mechanisms: How observed information influences the validity of missingness assumptions. *Sociological Methods & Research*. URL <https://doi.org/10.1177/0049124118799376>.

- [12] Schouten, R. M., Lugtig, P., and **Vink, G.** (2018). Generating missing values for simulation purposes: a multivariate amputation procedure. *Journal of Statistical Computation and Simulation*, pages 1–22. URL <https://doi.org/10.1080/00949655.2018.1491577>.
- [13] Reijntjes, A., Vermande, M., Olthof, T., Goossens, F. A., **Vink, G.**, Aleva, L., and van der Meulen, M. (2018). Differences between resource control types revisited: A short term longitudinal study. *Social Development*, 27(1):187–200.
- [14] **Vink, G.** and Van Buuren, S. (2017). mice: An approach to sensitivity analysis. https://www.gerkovink.com/MiceVignettes/Sensitivity_analysis.html.
- [15] **Vink, G.** and Van Buuren, S. (2017). mice: Imputing multi-level data. https://www.gerkovink.com/MiceVignettes/Multi_level_data.html.
- [16] **Vink, G.** and Van Buuren, S. (2017). mice: Passive imputation and post- processing. https://www.gerkovink.com/MiceVignettes/Passive_imputation_post_processing.html.
- [17] **Vink, G.** and Van Buuren, S. (2017). mice: The imputation and nonresponse models. https://www.gerkovink.com/MiceVignettes/Missingness_inspection.html.
- [18] **Vink, G.** and Van Buuren, S. (2017). mice: Algorithmic convergence and inference pooling. https://www.gerkovink.com/MiceVignettes/Convergence_and_pooling.html.
- [19] **Vink, G.** and Van Buuren, S. (2017). mice: Ad hoc methods and the mice algorithm. https://www.gerkovink.com/MiceVignettes/Ad_hoc_methods.html.
- [20] Boeschoten, L., **Vink, G.**, and Hox, J. (2017). How to obtain valid inference under unit non-response? *Journal of Official Statistics*, 33(4):963–978.
- [21] **Vink, G.** and van Buuren, S. (2017). micevignettes; flexible imputation with mice in r in a nutshell. <https://gerkovink.github.io/miceVignettes/>.
- [22] Schouten, R. and **Vink., G.** (2017). parlmice: faster, paralleler, micer. https://gerkovink.github.io/parlMICE/Vignette_parlMICE.html.
- [23] Schouten, R., Lugtig, P., Brand, J., and **Vink., G.** (2017). Generating missing values with ampute. <https://github.com/RianneSchouten/mice/tree/master/vignettes>.
- [24] Thijssen, J., **Vink, G.**, Muris, P., and de Ruiter, C. (2016). The effectiveness of parent management training—oregon model in clinically referred children with externalizing behavior problems in the netherlands. *Child Psychiatry & Human Development*, pages 1–15. doi: 10.1007/s10578-016-0660-5.
- [25] **Vink, G.**, Lazendic, G., and van Buuren, S. (2015). Partitioned predictive mean matching as a multilevel imputation technique. *Psychological Test and Assessment Modeling*, 57(4):577–594.
- [26] Peeters, M., Zondervan-Zwijnenburg, M., **Vink, G.**, and van de Schoot, R. (2015). How to handle missing data: A comparison of different approaches. *European Journal of Developmental Psychology*, 12(4):377–394.
- [27] Sorbi, M., Kleiboer, A., van Silfhout, M., **Vink, G.**, and Passchier, J. (2015). Medium-term effectiveness of online behavioral training in migraine self-management: A randomized trial controlled over 10 months. *Cephalalgia*, 35(7):608–618.

- [28] **Vink, G.** (2015). *Restrictive Imputation of Incomplete Survey Data*. PhD thesis, Utrecht University.
- [29] **Vink, G.** and van Buuren, S. (2015). Multiple imputation of parent management training oregon model data. Technical report, Maastricht University.
- [30] **Vink, G.** and van Buuren, S. (2014). Pooling multiple imputations when the sample happens to be the population. *arXiv preprint arXiv:1409.8542*.
- [31] **Vink, G.**, Frank, L. E., Pannekoek, J., and van Buuren, S. (2014). Predictive mean matching imputation of semicontinuous variables. *Statistica Neerlandica*, 68(1):61–90.
- [32] **Vink, G.** and Van Buuren, S. (2013). Multiple imputation of squared terms. *Sociological Methods & Research*, 42(4):598–607.
- [33] **Vink, G.** and Van Buuren, S. (2013). Multiple imputation of longitudinal naplan data. Technical report, Australian Curriculum, Assessment and Reporting Authority.
- [34] **Vink, G.**, Hox, J. J. C. M., and van Buuren, S. (2013). Report on bayesian estimation of social educational advantage. Technical report, Australian Curriculum, Assessment and Reporting Authority.
- [35] **Vink, G.**, Hox, J. J. C. M., and van Buuren, S. (2013). Multiple imputation of the acara social educational advantage data. Technical report, Australian Curriculum, Assessment and Reporting Authority.
- [36] Banning, R. and **Vink, G.** (2010). Methoden en indicatoren voor het evalueren en beschrijven van controle- en correctieprocessen. CBS nota DMV-2010- 06-08-RBNG-GVNBK, Centraal Bureau voor de Statistiek.
- [37] **Vink, G.** (2007). Meervoudige beoordelaarsovereenstemming met cohen's kappa: Dubbel-codering van strategiegebruik en fouttypen bij vermenigvuldigingsopgaven in onafhankelijke databeoordelaarscombinaties. Technical report, Leiden University.