# Gerko Vink

July 2019

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#### UTRECHT UNIVERSITY

Department of 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

- 2015 now **Assistant Professor**, *Department of Methodology and Statistics*, Utrecht University. August 2015 present
- 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

2008 – 2009 **Graduate Teaching Assistant**, *Department of Methodology and Statistics*, Leiden University, February 2008 - August 2009.

# Management positions

- 2017 now **PhD counselor (mentor)**, Department of Methodology and Statistics, Faculty of Social Sciences, Utrecht University.
- 2015 now **Educational Advisor**, *Programme Advisory Committee*, Research master program *Methodology and Statistics for the Behavioural, Biomedical and Social Sciences*, Faculty of Social Sciences, Utrecht University.
- 2012 now **Project Coordinator**, Interactive digital education, Research master program Methodology and Statistics for the Behavioural, Biomedical and Social 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.
- 2013 2016 **Coordinator**, *Minor Methodology and Statistics in the Social and Behavioural 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 funding

- 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

2016 **Big Data and Social Analytics**, *Massachusetts Institute of Technology*, Cambridge, MA, USA.

Teaching experience

# Undergraduate courses

| *2015 - now | Missing Data Theory and Causal Effects, Utrecht University [* Course coordinator]                      |
|-------------|--|
| 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] |
| 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]               |
| *2015 – now | Data Science: Statistical Programming in R [* Course coordinator]                                      |
| 2018        | Advanced Multilevel Analysis, Utrecht University   |
| 2014 - 2016 | Advanced Issues in Survey Design and Analysis  |
| 2013        | Survey Research: Statistical Analysis and Estimation   |
|             | Supervised students  |

- 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

### Current Phd students

- 2019 Duco Veen [ongoing project]
- 2018 Mingyang Cai [ongoing project]

### Past Phd students

#### 2017 - 2019 Rianne Schouten

# Invited courses / workshops

- 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]. Preconference 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 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, PLOS one, Psychometrika, JRSS Series C, MDPI Data, 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

## Editorships

2016 – now Recurring article editor for Sage Open

# Development

2017 - now BAMI: Benchmarking and Assessment for Multiple Imputation. Creator

2016 - now parlMICE in R. Author.

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, Flash, HTML, C++, LATEX

#### **Publications**

- [1] 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.
- [2] 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.
- [3] 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.
- [4] **Vink, G.** and Van Buuren, S. (2017). mice: An approach to sensitivity analysis. https://gerkovink.github.io/miceVignettes/Sensitivity\_analysis/Sensitivity\_analysis.html.
- [5] **Vink, G.** and Van Buuren, S. (2017). mice: Imputing multi-level data. https://gerkovink.github.io/miceVignettes/Multi\_level/Multi\_level\_data.html.
- [6] **Vink, G.** and Van Buuren, S. (2017). mice: Passive imputation and post- processing. https://gerkovink.github.io/miceVignettes/Passive\_Post\_processing/Passive\_imputation\_post\_processing.html
- [7] **Vink, G.** and Van Buuren, S. (2017). mice: The imputation and nonresponse models. https://gerkovink.github.io/miceVignettes/Missingness\_inspection/Missingness\_inspection.html.
- [8] **Vink, G.** and Van Buuren, S. (2017). mice: Algorithmic convergence and inference pooling. https://gerkovink.github.io/miceVignettes/Convergence\_pooling/Convergence\_and\_pooling.html.
- [9] **Vink, G.** and Van Buuren, S. (2017). mice: Ad hoc methods and the mice algorithm. https://gerkovink.github.io/miceVignettes/Ad\_hoc\_and\_mice/Ad\_hoc\_methods.html.

- [10] 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.
- [11] **Vink, G.** and van Buuren, S. (2017). micevignettes; flexible imputation with mice in r in a nutshell. https://gerkovink.github.io/miceVignettes/.
- [12] Schouten, R. and **Vink.**, **G.** (2017). parlmice: faster, paralleler, micer. https://gerkovink.github.io/parlMICE/Vignette\_parlMICE.html.
- [13] Schouten, R., Lugtig, P., Brand, J., and **Vink., G.** (2017). Generating missing values with ampute. https://github.com/RianneSchouten/mice/tree/master/vignettes.
- [14] 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.
- [15] **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.
- [16] 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.
- [17] 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.
- [18] **Vink, G.** (2015). Restrictive Imputation of Incomplete Survey Data. PhD thesis, Utrecht University.
- [19] **Vink, G.** and van Buuren, S. (2015). Multiple imputation of parent management training oregon model data. Technical report, Maastricht University.
- [20] **Vink, G.** and van Buuren, S. (2014). Pooling multiple imputations when the sample happens to be the population. *arXiv* preprint *arXiv*:1409.8542.
- [21] **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.
- [22] **Vink, G.** and Van Buuren, S. (2013). Multiple imputation of squared terms. *Sociological Methods & Research*, 42(4):598–607.
- [23] **Vink, G.** and Van Buuren, S. (2013). Multiple imputation of longitudinal naplan data. Technical report, Australian Curriculum, Assessment and Reporting Authority.
- [24] **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.

- [25] **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.
- [26] 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-GVNK, Centraal Bureau voor de Statistiek.
- [27] **Vink, G.** (2007). Meervoudige beoordelaarsovereenstemming met cohen's kappa: Dubbel-codering van strategiegebruik en fouttypen bij vermenigvuldigingsopgaven in onafhankelijke databeoordelaarscombinaties. Technical report, Leiden University.