



Academic appointments

- 2021–current **Postdoctoral Research Fellow**, *Harvard T.H. Chan School of Public Health, Harvard University*, Boston, USA
Developing Bayesian models to investigate, among others, the Covid-19 epidemic in US states and counties, and latent tuberculosis incidence in Brazil.
- 2022, April **Research visit**, *Department of Psychology, McGill University*, Montreal, Canada
Collaboration on N=1 multilevel research with Prof. M. Miočević
- 2019, Jan-Mar **Visiting researcher**, *University of California, Irvine*, Irvine, USA
Three month collaboration with Prof. J. Rouder on Bayesian hypothesis testing for within-between subject experiments.
- 2015–2020 **PhD candidate**, *Department of Methodology and Statistics, Utrecht University*, Utrecht, The Netherlands
Funded by NWO Talent Grant 406-12-001. Conducting independent research for my dissertation, providing statistical consultations and teaching undergraduate and graduate courses in statistics and research methodology.

Degrees

- 2015–2020 **PhD**, *Methodology and Statistics*, Utrecht University, The Netherlands
Dissertation title: The Latest Update on Bayesian Informative Hypothesis Testing.
Advisors: Prof. H. Hoijtink and Prof. I. Klugkist.
- 2013–2015 **MSc. Cum Laude**, *Methodology and Statistics*, Utrecht University, The Netherlands
Methodology and Statistics for the Behavioural, Biomedical, and Social Sciences
- 2010–2013 **BA Cum Laude**, *Social Sciences*, Amsterdam University College, The Netherlands
Major: Psychology. Exchange semester at the Katholieke Universiteit Leuven.

Work experience

- 2020 **Volunteer: Editorial board**, *Milieucentrum Utrecht*, Utrecht, The Netherlands
- 2014–2015 **Research assistant**, *Utrecht University*, Utrecht, The Netherlands
Assisting in research (data collection, interviews, analyzing and reporting results).
- 2014 **Research assistant**, *CITO*, Arnhem, The Netherlands
Developing R code to evaluate adaptive tests; analyzing test data to detect cheating.
- 2008–2014 **Tutor**, *Bijlesnetwerk*, Amsterdam and Utrecht, The Netherlands
- 2013 **Intern**, *Municipality of Amsterdam*, Amsterdam
- 2011–2012 **Intern**, *Anglia Network Europe / MarocEd*, Casablanca, Morocco

Grants and awards

- 2017 **Education Incentive Fund**, 15.000 euro
Miočević, M., Aarts, E., **Klaassen, F.**, Lek, K.M., Mulder, K.T., Namesnik, K.T., Veen, D., Zondervan-Zwijnenburg, M.A.J. (2017).
Developing R Shiny applications for teaching purposes.
- 2017 **Citizen Science Award**, LERU Doctoral Summer School, 2.500CHF
Quinn, S., Lukeš, D., Jenkins, H., **Klaassen, F.**, Bisaga, I., Javan, R.R., Schinkelshoek, M.S., and Dulęba, A. (2017). *Lets WakeApp*
- 2017 **ETSS EJPT best paper of 2017 award**, Third place
- 2016 **Travel grant for the ISBA World Meeting**, \$400

Publications

- 2024 van Lieshout Titan, A, **Klaassen, F.**, Pelissari, DM, de Barros Silva Junior, JN, Alves, K, Costa Alves, L, Sanches, M, Bartholomay, P, Costa Johansen, FD, Croda, J, Andrews, JR, Castro, MC, Cohen, T, Vuijck, C, & Menzies, NA. (preprint 2024). Cost-effectiveness and health impact of screening and treatment of Mycobacterium tuberculosis infection among formerly incarcerated individuals in Brazil.medRxiv
- 2023 Chen, NFH, Pham, K, Chaguza, C, Lopes, R, **Klaassen, F.**, Weinberger, DM, Pitzer, VE, Warren, JL, Grubaugh, ND, & Hahn, AM. (preprint 2023). Escalating combinations of enhanced infectivity and immune escape define SARS-CoV-2 Omicron lineage replacement.medRxiv
- 2023 Lopes, R, Pham, K, **Klaassen, F.**, Chitwood, MH, Hahn, AM, Redmond, S, Swartwood, NA, Salomon, JA, Menzies, NA, Cohen, T, & Grubaugh, ND. (preprint 2023). Combining genomic data and infection estimates to characterize the complex dynamics of SARS-CoV-2 Omicron variants in the United States.medRxiv
- James, LP, **Klaassen, F.**, Sweeney, S, Furin, J, Franke, MF, Yaesoubi, R, Chesov, D, Ciobanu, N, Codreanu, A, Crudu, V, Cohen, T, & Menzies, NA. (preprint, 2023). Impact and cost-effectiveness of the 6-month BPaLM regimen for rifampicin-resistant tuberculosis: a mathematical modeling analysis.medRxiv
- Klaassen, F.**, Holm, RH, Smith, T, Cohen, T, Bhatnagar, A, & Menzies, NA. (2023). Predictive power of wastewater for nowcasting infectious disease transmission: A retrospective case study of five sewershed areas in Louisville, Kentucky. *Environmental Research*, 1 (240, pt 2):117395. doi:10.1016/j.envres.2023.117395
- Klaassen, F.**, Chitwood, MH, Cohen, T, Pitzer, VE, Russi, M, Swartwood, NA, Salomon, JA & Menzies, NA. (2023). Changes in Population Immunity Against Infection and Severe Disease From Severe Acute Respiratory Syndrome Coronavirus 2 Omicron Variants in the United States Between December 2021 and November 2022. *Clinical Infectious Diseases*, 77 (3) 355-361. *Editor's choice* doi:10.1093/cid/ciac210
- Miočević, M, **Klaassen, F.**, Moeyaert, M, & Geuke, G, (2023). Optimal practices for mediation analysis in ab single case experimental designs. *Journal of Experimental Education* (Online). doi:10.1080/00220973.2023.2243593
- Klaassen, F.**, Chitwood, MH, Cohen, T, Pitzer, VE, Russi, M, Swartwood, NA, Salomon, JA & Menzies, NA. (2023). Population immunity to pre-Omicron and Omicron SARS-CoV-2 variants in US states and counties through December 1, 2021. *Clinical Infectious Diseases*, 76, 3. doi:10.1093/cid/ciac438
- 2022 Chitwood MH, Russi M, Gunasekera K, Havumaki J, **Klaassen, F.**, Pitzer VE, Salomon JA, Swartwood NA, Warren JL, Weinberger DM, Cohen T, Menzies NA. Reconstructing the course of the COVID-19 epidemic over 2020 for US states and counties: results of a Bayesian evidence synthesis model. (2022). *PLOS Computational Biology*, 18 (8). doi:10.1371/journal.pcbi.1010465
- 2021 De Mulder, HNM, Hakemulder, F, **Klaassen, F.**, Junge, CMM., Hoijsink, H, & van Berkum, JJA .(2021). Figuring out what they feel: Exposure to eudaimonic narrative fiction is related to mentalizing ability. *Psychology of Aesthetics, Creativity, and the Arts. Advance online publication*.doi:10.1037/aca0000428
- 2020 Haaf, J, **Klaassen, F.**, & Rouder, J. (preprint, 2020). A note on using systems of orders to capture theoretical constraint in psychological science. PsyRxiv
- Miočević, M, **Klaassen, F.**, Geuke, G, Moeyaert, M, & Maric, M. (2020). Using Bayesian methods to test mediators of intervention outcomes in single-case experimental designs. *Evidence-Based Communication Assessment and Intervention*, 14 (1-2). doi:10.1080/17489539.2020.1732029

- Klaassen, F** (2020). Combining evidence over multiple individual analyses. In R Van de Schoot & M Miočević (Eds.), *Small sample size solutions: A guide for applied researchers and practitioners*. Routledge.
- 2019 **Klaassen, F**. (2019). BayesianPower: Sample size and power for comparing inequality constrained hypotheses. R package, version 0.1.6. CRAN
- Kuiling, JME, **Klaassen, F** and Hagenaaars, MA. (2019). The role of tonic immobility and control in the development of intrusive memories after experimental trauma. *Memory*, 27(6). doi:10.1080/09658211.2018.1564331
- van der Ham, IJM, **Klaassen, F**, van Schie, K, and Cuperus, AA. (2019). Elapsed time estimates in virtual reality and the physical world: The role of arousal and emotional valence. *Computers in Human Behavior*, 94. doi:10.1016/j.chb.2019.01.005
- 2017 **Klaassen, F**, Zedelius, C, Veling, H, Aarts, H, and Hoijtink, H. (2017). All for One or Some for All? Evaluating Informative Hypotheses using Multiple $N = 1$ Studies. *Behavior Research Methods* doi:10.3758/s13428-017-0992-5
- Hagenaaars, MA, Holmes, EA, **Klaassen, F**, and Elzinga, B. (2017). Tetris and word game affect intrusive memories when applied after memory reactivation 4 days post analogue trauma. *European Journal of Psychotraumatology*. 8 (Sup 1). 3rd place ETSS EJPT best paper of 2017 award.
- De Mulder, HNM, Hakemulder, F, van den Berghe, R, **Klaassen, F** and van Berkum, J. (2017). Effects of exposure to literary narrative fiction: From book smart to street smart? *Scientific Study of Literature*, 7 (1), pp. 129-169.
- Cuperus, AA, **Klaassen, F**, Hagenaaars, MA, and Engelhard, IM. (2017). A virtual reality paradigm as an analogue to real-life trauma: Its effectiveness compared with the trauma film paradigm. *European Journal of Psychotraumatology*. 8 (Sup 1). doi:10.1080/20008198.2017.1338106

Presentations, Invited talks, Posters

- 2023 Presentation abstract: Incorporating wastewater data to enhance predictive performance of infectious disease nowcasting. (**Klaassen, F**, Holm, RH, Smith, T, Cohen, T, Bhatnagar, A, and Menzies, NA, 2023). *Society for Medical Decision Making, Philadelphia, PA, USA*.
- Poster abstract: Characterizing pathways to population immunity against SARS-CoV-2. (**Klaassen, F**, Chitwood, MH, Cohen, T, Pitzer, VE, Russi, M, Swartwood, NA, Salomon, JA and Menzies, NA, 2023). *Society for Medical Decision Making, Philadelphia, PA, USA*.
- Presentation: Characterizing pathways to population immunity against SARS-CoV-2. (**Klaassen, F**, Chitwood, MH, Cohen, T, Pitzer, VE, Russi, M, Swartwood, NA, Salomon, JA and Menzies, NA, 2023). *Freeman-Seage Symposium, Harvard School of Public Health, Boston, MA, USA*.
- 2022 Invited talk: Using RStan for Bayesian statistics. (**Klaassen, F**, 2022). *Harvard Data Science Initiative R User Group, Boston, MA, USA*.
- Invited talk: Bayesian hypothesis testing and modeling. (**Klaassen, F**, 2022). *McGill University, Montreal, Canada*.
- 2019 Presentation: Not everybody does. (**Klaassen, F**, Zedelius, C, Veling, H, Aarts, H, and Hoijtink, H, 2019). *International Multilevel Conference, Utrecht, The Netherlands*.
- 2018 Presentation: Bayesian hypothesis testing. (**Klaassen, F**, 2018). *IOPS, Cito, Arnhem, the Netherlands*.
- Presentation: All for one or some for all? (**Klaassen, F**, Zedelius, C, Veling, H, Aarts, H, and Hoijtink, H, 2018). *DGPs, Frankfurt am Main, Germany*.
- Invited talk: Updating Bayes Factors within a dataset. (**Klaassen, F**, Zedelius, C, Veling, H, Aarts, H, and Hoijtink, H, 2018). *A gentle introduction into Bayesian statistics, Graduate Summer School Small Sample Analysis, Utrecht, the Netherlands*.
- Presentation: On reasons to use subjective Bayes. (**Klaassen, F** and Veen, D, 2018). *EAM Conference, Jena, Germany*.
- Presentation: One for all or some for all? (**Klaassen, F**, Zedelius, C, Veling, H, Aarts, H, and Hoijtink, H, 2018). *S⁴ (Small Sample Size Solutions, Utrecht, the Netherlands)*.
- 2017 Presentation: Staying in the loop: Prior probabilities, Bayes factor, posterior probabilities. (**Klaassen, F**, 2017). *PSE (Perspectives on Scientific Error), Tilburg, the Netherlands*.
- Presentation: Staying in the loop: Prior probabilities, Bayes factor, posterior probabilities. (**Klaassen, F**, 2017). *IMPS, Zürich, Switzerland*.

- 2016 Poster: The power of informative hypotheses. (Klaassen, F, Hoijtink, H and Gu, X, 2016). *ISBA World meeting, Sardinia, Italy*.
 Poster: Sequential updating of Bayes factors for within subject analysis. (Klaassen, F, Zedelius, C, Veling, H, Aarts, H, and Hoijtink, H, 2016). *IOPS Summer conference, Enschede, the Netherlands*.
- 2015 Presentation: The power of informative hypotheses. (Klaassen, F, Hoijtink, H and Gu, X, 2015). *CSI (Constrained Statistical Inference), Otterlo, the Netherlands*.
- 2014 Presentation: Using online measures to examine the effects of scaffolding and feedback on learning. (Janssen, E, Soeters, N, Duijzer, C, Francot, R, Klaassen, F, Kroonenberg, M, van der Laan, N, van de Pol, J, & Leseman, P, 2014). *Earli SIG 6&7, Rotterdam, the Netherlands*.

Other output

- 2021-2024 **www.covideestim.org**
 Maintained website with nowcast estimates of Covid-19 infections in the US, and associated GitHub infrastructure (link) and R package (link)
- 2022-2023 **Interviews and citations**
 Interviews and citations of academic output in various news outlets (e.g., The New York Times (21-11-2023); News Medical Life Sciences (23-11-2022); Michigan Live (30-01-2022))

Professional development

- 2015–2023 **Completed (post)-graduate courses and certificates**
- Introduction to Databases with SQL. Harvard Extension School. 4EC. (2023).
 - Writing an IMRAD manuscript; Writing Clearly and Concisely; CITI for Social and Behavioral Research Investigators; Data Security Training Course (2022)
 - LERU Graduate Summer School: Citizen Science, Zürich. July 10-14 2017.
 - IOPS certificate (Interuniversity Graduate School of Psychometrics and Sociometrics). 12 EC. (2015-2019). Generalized Latent Variable Modeling; Optimization and Numerical Methods; Statistical Learning; Meta-Analysis; What is Psychometrics; Statistical Consulting).
 - Teaching certificate from Utrecht University (2015-2019).
 - Professional workshops (2015-2018): Research Funding Days (2018); Storytelling for Science (2017); Academic writing in English (2016); How to create societal impact with your research? (2016); Research integrity (2015).
- 2023 **Organizer of lab writing sessions, Menzies Lab, HSPH**, Facilitating writing goals, feedback and sharing of tips and tricks.
- 2022-2023 **Organizer of postdoctoral peer-intervision sessions, HSPH**
- 2018 **Organizer and chair of symposium**, Applying subjective Bayes to real life data., EAM (European Association for Methodology) Conference, Jena, Germany. Organizing team: Klaassen, F, Lek, KM, Ni, H, Veen, D, and Winter, S, Zondervan-Zwijnenburg, MA.
- 2015–2018 **Representation, Utrecht University**
- PhD-representative in the PhD council of the Faculty of Social Sciences.
 - PhD-representative for the Interuniversity Graduate School of Psychometrics and Sociometrics.
 - Member of the graduate Think Tank, stimulating collaboration between graduate students.
 - Member of the organizing committee of the 'Dare to cross-over' graduate conference.
 - Reviewer for *i.a.* Behavior research methods; Psychological Methods; European Journal of Research Methods in the Behavioral and Social Sciences.

Teaching Experience

Courses

- 2022 **Guest lecture: Bayesian hypothesis testing, Gibbs and Metropolis Hasting sampling, Bayesian statistics**, McGill University
- 2015–2019 **Bayesian Statistics, Research Master, Utrecht University**
 Lectures, practicals, grading and coordination of assignments
- 2018 **Multivariate Statistics, Research Master, Utrecht University**
 Lectures, practicals, grading and coordination of assignments
- 2015–2017 **Methoden, Technieken en Statistiek 3, Bachelor, Utrecht University**
 Seminars on critical evaluation of research methods

- 2015 **Methoden, Technieken en Statistiek 4**, Bachelor, Utrecht University
Computer labs
- 2015–2016 **Advanced course on using Mplus**, Graduate Summer School, Utrecht University
Computer practicals.
- 2014–2016 **Introduction to Structural Equation Modelling using Mplus**, Graduate Summer School, Utrecht University
Computer practicals.

Supervision

- 2022-2024 **Undergraduate Research Internship**
Co-supervised undergraduate research intern with Prof. N. Menzies. Advised on research project modeling TB infections using, among others, Bayesian microsimulation.
- 2017 **Bachelor Thesis**
Bayesiaanse Evaluatie van Informatieve Hypotheses als Methode voor Replicatiebeoordeling. (*English translation: Bayesian evaluation of informative hypothesis as a method for evaluating replication studies.*)
Co-supervised with Prof. H. Hoijtink.
- 2016 **Bachelor Thesis**
De toename van de kans op toevallige significante resultaten bij het toetsen van meerdere hypotheses. (*English translation: The increased probability of spurious significant effects in testing multiple hypotheses.*)
Co-supervised with Prof. H. Hoijtink.

Languages and software

- Languages Dutch (native); English (fluent); French, German and Spanish (active knowledge A1, passive knowledge A2-B1); Dutch supported with signs (Level 2); Kannada (beginner).
- Software Office, R, including rstan, rjags, Rcpp and R shiny, LaTeX en SPSS (advanced); SQLite3, Mplus, OpenBugs/WinBugs, HLM and Wordpress (medium).