ANGELIKA M. STEFAN

PERSONAL INFORMATION

E-mail: angelika.m.stefan@gmail.com
Website: https://astefan1.github.io/
Date of birth: 11th of October, 1992
Nationality: German

EDUCATION & EMPLOYMENT

2024 – present **Lecturer**
University of Liverpool, Department of Psychology

2023 – 2024 **Postdoctoral Researcher (Akademische Rätin auf Zeit)**
Ludwig-Maximilians-Universität München, Chair for Cognitive Modelling in Psychology (Prof. Chris Donkin)

2022 – 2023 **Postdoctoral Researcher (Wissenschaftliche Mitarbeiterin)**
Universität der Bundeswehr München, Institut für Psychologie, Lehrstuhl für Methodenlehre und Evaluation (Prof. Timo v. Oertzen)

2018 – 2023 **PhD candidate**
University of Amsterdam, Department for Psychological Methods
Supervisor: Prof. Eric-Jan Wagenmakers
Dissertation: "Bayesian Power" (graduated with highest distinction **)
IOPS graduate school diploma

2015 – 2018 **Economic, Organizational, and Social Psychology Master of Science**
Ludwig-Maximilians-Universität München (German grade: 1.06, GPA 4.0*)

2012 – 2015 **Psychology Bachelor of Science**
Ludwig-Maximilians-Universität München (German grade 1.15, GPA 4.0*)

AWARDS, GRANTS, & FELLOWSHIPS

2023 **LMU Postdoc Support Fund Networking Grant**
Total award: 2350 €; travel fund for conference attendance

2021 **IOPS Best Presentation Award**
Total award: 50 €; Best presentation at the SMiP IOPS Conference July 2021

2019 **FIT4RRI Training Grant**
Co-applicant; total award: 3500 €; main applicant: Felix Schönbrodt

2018 – 2023 **NWO Research Talent Grant**
Total award: 232,563 €; 4-year Dutch scholarship to obtain a doctoral degree

2018 – 2021 **PhD Scholarship Studienstiftung des Deutschen Volkes**
German public talent support scheme for PhD students

* German grade: on a scale from 1 to 5 with 1 being the best grade and 5 being the worst grade. If a course is graded 4 or better, the student has passed the course. GPA calculated using https://www.scholaro.com/gpa-calculator/Germany

** Dutch "cum laude" distinction: the highest degree of distinction for doctoral dissertations in the Dutch university system, awarded to approximately 5% of dissertations

2017	**„Forschung vor Ort“ Travel Award of the Max-Weber-Program** Total award: 350 €; for a poster presentation at DPPD 2017
2017	**Erasmus+ Traineeship Program (Fellowship)** Total award: 3800 €; for a research internship at University of Amsterdam
2015 – 2018	**Max-Weber-Program of the Federal State of Bavaria (Fellowship)** Total award: 7450 €; stipend for talented students in Bavaria
2015	**Award for Graduating Among the Best 10% of the Year** Bachelor in Psychology Year 2015, Ludwig-Maximilians-Universität München

PEER-REVIEWED PUBLICATIONS

* denotes equal author contributions

Manuscripts under Review / Revision

(23) Egli, S.*, Badenbach, T.*, van Emmerik, A., **Stefan, A. M.**, OPTIMA Study Group, & Kopf-Beck, J. (2024). Emotion regulation and attachment as mechanisms of change in schema therapy and cognitive behaviour therapy for depression. https://osf.io/preprints/osf/67vhn

(22) Gigerenzer, G., Allen, C., Gaillard, S. D. M., Goldstone, R. L., Haaf, J. M., Holmes, W. R., Kashima, Y., Motz, B., Musslick, S., & **Stefan, A. M.** (2024). Alternative models of research funding. https://philsci-archive.pitt.edu/23484/

(21) Claus, N., Flechsenhar, A., Motka, F., Ehring T., Sckopke, P., Schönbrodt, F. D., **Stefan, A. M.,** Werner, G. G., Cludius, B., & Zygar-Hoffmann, C. (2023). Interpersonal versus intrapersonal emotion regulation: Intensity of negative emotion predicts usage probability. https://osf.io/hjzpw/

(20) Ruisch, B. C., Anderson, R. A., **Stefan, A. M.,** & Krosch, A. R. (2023). Are there ideological asymmetries in intergroup bias? A minimal groups approach. *Stage 1 Registered Report submitted to Nature Human Behavior, in principle acceptance (in preparation for stage 2 resubmission).* https://osf.io/jxsgw/?view_only=1b1994774989419eac3be214fce974f7

(19) Kaczmarek, N., Mignon, A., Rousseau, A., & **Stefan, A. M.** (2023). Comparing the effectiveness of mental contrasting, implementation intentions, and their combination to promote physical activity among insufficiently active people. *Stage 1 Registered Report, submitted to International Review of Social Psychology, in principle acceptance (in preparation for stage 2 resubmission)*

(18) McKinney, K., **Stefan, A. M.,** & Gronau, Q. F. (2021). Developing prior distributions for Bayesian meta-analyses. *Submitted to Collabra:Psychology (major revisions, in preparation for re-submission).* https://psyarxiv.com/2v5bz/

Accepted / In Press

(17) **Stefan, A. M.,** Gronau, Q. F., & Wagenmakers, E.-J. (in press). Interim design analysis using Bayes factor forecasts. *Psychological Methods.* https://doi.org/10.1037/met0000641

2024

(16) Veenman, M., **Stefan, A. M.,** & Haaf, J. (2024). Bayesian hierarchical modeling: An introduction and reassessment. *Behavior Research Methods 56,* 4600-4631. https://doi.org/10.3758/s13428-023-02204-3

(15) Sarafoglou, A., Bartoš, F., **Stefan, A. M.,** Haaf, J. M., & Wagenmakers, E.-J. (2024). “This behavior strikes us as ideal”: Assessment and anticipations of Huisman (2024). *Psychonomic Bulletin & Review 31*(1), 242-248, https://doi.org/10.3758/s13423-023-02299-x

2023

(14) Visser, I.*, Kucharský, Š.*, Levelt, C., **Stefan, A. M.,** Wagenmakers, E.-J., & Oakes, L. (2023). Bayesian sample size planning for developmental studies. *Infant and Child Development*, e2412. https://doi.org/10.1002/icd.2412

(13) van Doorn, J., Aust, F., Haaf, J., **Stefan, A. M.,** & Wagenmakers E.-J. (2023). Bayes factors for mixed models. *Computational Brain & Behavior 6*, 1-13, https://doi.org/10.1007/s42113-021-00113-2

(12) **Stefan, A. M.** & Schönbrodt, F. D. (2023). Big little lies: A compendium and simulation of p-hacking strategies. *Royal Society Open Science, 10*(2), 220346. https://doi.org/10.1098/rsos.220346

(11) Werner, G., Sckopke, P., Cludius, B., **Stefan, A.,** Schönbrodt, F., & Zygar-Hoffmann, C. (2023). The predictive power of insomnia symptoms on other aspects of mental health during the COVID-19 pandemic: A longitudinal study. *Journal of Sleep Research 32*(1), e13641, https://doi.org/10.1111/jsr.13641

2022

(10) **Stefan, A. M.,** Lengersdorff, L. L., & Wagenmakers, E.-J. (2022). A two-stage Bayesian sequential assessment of exploratory hypotheses. *Collabra:Psychology 8*(1), https://doi.org/10.1525/collabra.40350

(9) **Stefan, A. M.,** Schönbrodt, F. D., Evans, N. J., & Wagenmakers, E.-J. (2022). Efficiency in sequential testing: Comparing the Sequential Probability Ratio Test and the Sequential Bayes Factor Test. *Behavior Research Methods 55*, 3100-3117. https://doi.org/10.3758/s13428-021-01754-8

(8) **Stefan, A. M.*,** Katsimpokis, D.*, Gronau Q., & Wagenmakers, E.-J. (2022). Expert agreement in prior elicitation and its effects on Bayesian inference. *Psychonomic Bulletin & Review, 29*, 1776-1794. https://doi.org/10.3758/s13423-022-02074-4

(7) **Stefan, A. M.,** Evans, N. J., & Wagenmakers, E.-J. (2022). Practical challenges and methodological flexibility in prior elicitation. *Psychological Methods*, *27*(2), 177-197. https://doi.org/10.1037/met0000354

2021

(6) van Doorn, J., van den Bergh, D., Böhm, U., Dablander, F., Derks, K., Draws, T., Evans, N. J., Gronau, Q. F., Hinne, M., Kucharsky, S., Ly, A., Marsman, M., Matzke, D., Komarlu, A. R., Gupta, N., Sarafoglou, A., **Stefan, A. M.,** Voelkel, J., & Wagenmakers, E.-J. (2021). The JASP guidelines for conducting and reporting a Bayesian analysis. *Psychonomic Bulletin & Review*, *28*, 813-826 https://doi.org/10.3758/s13423-020-01798-5

2020

(5) van den Bergh, D., van Doorn, J., Marsman, M., Draws, T., van Kesteren, E.-J., Derks, K., Dablander, F., Gronau, Q., Kucharsky, S., Raj, A., Sarafoglou, A., Voelkel, J., **Stefan, A. M.,** Ly, A., Hinne, M., Matzke, D., & Wagenmakers, E.-J. (2020). A tutorial on conducting and interpreting a Bayesian ANOVA in JASP. *L'Année Psychologique / Topics in Cognitive Psychology, 120*(1), 73-96. https://doi.org/ 10.3917/anpsy1.201.0073

(4) **Stefan, A. M.,** & von Oertzen, T. (2020). Bayesian power equivalence in latent growth curve models. *British Journal of Mathematical and Statistical Psychology*, *73*(S1), 180-193. https://doi.org/10.1111/bmsp.12193

(3) Ly, A., **Stefan, A. M**., van Doorn, J., Dablander, F., van den Bergh, D., Sarafoglou, A., Kucharsky, S., Derks, K., Gronau, Q. F., Raj, A., Boehm, U., van Kesteren, E.-J., Hinne, M., Matzke, D., Marsman, M., & Wagenmakers, E.-J. (2020). The Bayesian methodology of Sir Harold Jeffreys as a workable alternative to the p-value hypothesis test. *Computational Brain & Behavior*, *3*, 151-161. https://doi.org/10.1007/s42113-019-00070-x

2019

(2) Crüwell, S., **Stefan, A. M.,** & Evans, N. J. (2019). Robust standards in cognitive science. *Computational Brain & Behavior*, *2*(3), 255–265. https://doi.org/10.1007/s42113-019-00049-8

(1) **Stefan, A. M.,** Gronau, Q. F., Schönbrodt, F. D., & Wagenmakers, E.-J. (2019). A tutorial on Bayes Factor Design Analysis using an informed prior. *Behavior Research Methods*, *51*(3), 1042–1058. https://doi.org/10.3758/s13428-018-01189-8

BOOK CHAPTERS, INVITED CONTRIBUTIONS, OTHER ACADEMIC PUBLICATIONS

van Doorn, J., Haaf, J. M., **Stefan, A. M.,** Wagenmakers, E.-J., Cox, G. E., Davis-Stober, C. P., Heathcote, A., Heck, D. W., Kalish, M., Kellen, D., Matzke, D., Morey, R. D., Nicenboim, B., van Ravenzwaaij, D., Rouder, J. N., Schad, D. J., Shiffrin, R. M., Singmann, H., Vasishth, S., Veríssimo, J., Bockting, F., Chandramouli, S., Dunn, J. C., Gronau, Q. F., Linde M., McMullin, S. D., Navarro, D., Schnuerch, M., Yadav, H., & Aust, F. (2023). Bayes factors for mixed models: A discussion. *Computational Brain and Behavior 6,* 140-158, https://doi.org/10.1007/s42113-022-00160-3

van Doorn, J., Aust, F., Haaf, J., **Stefan, A. M.,** & Wagenmakers, E.-J. (2023). Bayes factors for mixed models: Perspective on responses. *Computational Brain and Behavior 6,* 127-135. https://doi.org/10.1007/s42113-022-00158-x

Stefan, A. M. (2022). Statistics for making decisions. *The American Statistician*, *76*(1), 87–88. doi: 10.1080/00031305.2021.2020003

van Doorn, J., van den Bergh, D., Dablander, F., Derks, K., Evans, N. J., Gronau, Q. F., Haaf, J. M., Kunisato, Y., Ly, A., Marsman, M., Sarafoglou, A., **Stefan, A. M.,** & Wagenmakers, E.-J. (2021). Strong public claims may not reflect researchers' private convictions. *Significance*, *18*(1), 44-45. doi:10.1111/1740-9713.01493

Stefan, A. (2020). Singers: Bayesian 2 x 2 ANOVA. In Wagenmakers, E.-J., Kucharsky, S., & The JASP Team (Ed.), *The JASP Data Library: First Edition* (pp. 137-144). doi: 10.31234/osf.io/vr2u8

Stefan, A. (2020). Emily Rosa: Bayesian Binomial Test. In Wagenmakers, E.-J., Kucharsky, S., & The JASP Team (Ed.), *The JASP Data Library: First Edition* (pp. 285-290). doi: 10.31234/osf.io/vr2u8

Stefan, A. (2017). Von einem, der auszog, das Fürchten zu lernen von den Gebrüdern Grimm (1818). In D. Frey (Ed.), *Psychologie der Märchen: 41 Märchen wissenschaftlich analysiert - und was wir heute aus ihnen lernen können* (pp. 109-116). Berlin: Springer. doi: 10.1007/978-3-662-53668-1_15

Stefan, A. (2017). Der Fischer und der Dschinn aus Tausendundeiner Nacht. In D. Frey (Ed.), *Psychologie der Märchen: 41 Märchen wissenschaftlich analysiert - und was wir heute aus ihnen lernen können* (pp. 141-147). Berlin: Springer. doi: 10.1007/978-3-662-53668-1_19

TEACHING EXPERIENCE

Lecturing

2023 **Statistik I für Schulpsychologiestudierende** (Ludwig-Maximilians-Universität; full-semester introductory statistics course for undergraduate School Psychology students)

Statistik II für Schulpsychologiestudierende (Ludwig-Maximilians-Universität; full-semester introductory statistics course for undergraduate School Psychology students)

Kausalität (Universität der Bundeswehr; 4h lecture for Psychology masters students on causality)

Computergestützte Datenanalyse (Universität der Bundeswehr; 1-day data analysis course for undergraduate Psychology students; co-taught with Timo von Oertzen)

2022 **Computergestützte Datenanalyse** (Universität der Bundeswehr; 1-day data analysis course for undergraduate Psychology students; co-taught with Timo von Oertzen)

Zentralübung: Statistik für Psychologiestudierende (Universität der Bundeswehr; full-trimester practical course in statistics for undergraduate Psychology students)

2021 **Bayesian Model Comparisons** (University of Amsterdam; 1.5h lecture in a 4-week course on Bayesian statistics for undergraduate Psychology students)

PSY 504 Advanced Statistical Methods for Psychological Science (Princeton University; two 2-hour lectures on Bayesian inference for Psychology graduate students)

Small group teaching

2024 **Seminar zu Statistik II für Schulpsychologiestudierende** (Ludwig-Maximilians-Universität; full-semester introductory statistics tutorial for undergraduate School Psychology students)

2023 **Bayesianische Statistik Wahlpflichtmodul** (Universität der Bundeswehr; full-trimester elective course on Bayesian statistics for Psychology Master and PhD students)

2021 **Bayesian Statistics - Practical** (University of Amsterdam; 4-week Psychology undergraduate specialization course; co-taught with Charlotte Tanis and Julia Haaf)

2020 **Bayesian Statistics - Practical** (University of Amsterdam; 4-week Psychology undergraduate specialization course; co-taught with Charlotte Tanis)

Supervision

2023 Dominik Trommer (Master project, Universität der Bundeswehr)

2022 Laura Groot (Bachelor thesis, University of Amsterdam)
Meike Waaijers (Bachelor thesis, University of Amsterdam)
Tara Zohrevand (Bachelor thesis, University of Amsterdam)
Wesley Korff (Bachelor thesis, University of Amsterdam)

2021 Maximilian Meier (Master thesis, University of Amsterdam; UvA Psychology thesis prize)
Alexander Heinz (Master thesis, University of Amsterdam)
Alexander Heinz (Internship project in collaboration with Yagora GmbH)

2019 Elise van Dam (Bachelor thesis, University of Amsterdam)
Jori Lam (Bachelor thesis, University of Amsterdam)
Waldo Stukje (Bachelor thesis, University of Amsterdam)
Suzanne van Steenoven (Bachelor thesis, University of Amsterdam)

Workshops

2023 An Introduction to Bayesian Data Analysis with JASP (University of Hamburg)
Sensitivity Analyses (Ludwig-Maxmilians-Universität, Open Science Center)
Sample Size Determination and Robustness Checks in Bayesian Inference (University of Verona)
Advanced Topics in Preregistration (University of Saarbrücken)

2022 Introduction to Bayesian Data Analysis (University of Sheffield)
R Crashkurs für Anfänger und Wiedereinsteiger (Universität der Bundeswehr)
Bayesian Data Analysis with JASP (Max-Planck School of Cognition; co-taught with Nathan Evans)
Bayesian Data Analysis with JASP (Vrije Universiteit Amsterdam; co-taught with Koen Derks)

2021 Advanced Applications in Bayesian Hypothesis Testing (Universität Kassel; co-taught w. N. Evans)
Introduction to Bayesian Data Analysis with JASP (Universität Kassel)
Bayesian Statistics with JASP (Universität Duisburg-Essen)
Bayesian Data Analysis with JASP (Vrije Universiteit Amsterdam; co-taught with Koen Derks)
What's your prior? Incorporating prior knowledge into the prior distribution (Psychology Forum, University of Amsterdam, co-taught with Julia Haaf)

2020 Preregistration and Preprints: What, Why, and How? (Vrije Universiteit Amsterdam; co-taught with Sandra Geiger and Maximilian Meier)
Bayesian Data Analysis with JASP (Max-Planck School of Cognition; co-taught with Nathan Evans)

2019 Open Science Bottom Up: An Open Science Workshop for Students (Ludwig-Maximilians-Universität; co-taught with Felix Schönbrodt)
Introduction to Bayesian Data Analysis (Johannes Gutenberg Universität Mainz)
Bayesian Data Analysis with JASP (University of Padova; co-taught with Koen Derks)

INVITED TALKS

2024 *Big little lies: Simulating the destructive power of p-hacking.* Open Science Summer School, King's College, London

2023 *Interim design analyses: Can re-evaluating sampling plans improve study designs?* Colloquium of the Psychological Institute, Johannes-Gutenberg-Universität Mainz

Gazing into the abyss of p-hacking. ReproducibiliTea University of East Anglia

2022 *p-Hacking: Big little lies.* ReproducibiliTea Frankfurt, Goethe University Frankfurt

Big little lies: p-Hacking and effective countermeasures. ReproducibiliTea Munich, Ludwig-Maximilians-Universität

Beyond power: Research design in the Bayesian age. Holy grail of research methods symposium, Radboud University Nijmegen

2021 *How can we find out what experts know? A critical evaluation of prior elicitation techniques for Bayesian modelling.* Latest developments in formal methods of lifespan psychology workshop, Max-Planck-Institut für Bildungsforschung

Preventing the power failure: How re-evaluating sampling plans can improve study designs. Psychometrics and Statistics Group, University of Groningen

BFDA: An R package for Bayesian sample size calculation. New tools and practices to promote open and efficient science workshop, UK Reproducibility Network

Does everything depend on the prior? Investigating the influence of interpersonal variation of elicited prior distributions on Bayesian inference. Department of Psychology, University of Groningen

2020 *Bayesian statistics: A conceptual introduction and common questions.* Amsterdam Center for Language and Communication, University of Amsterdam

CONFERENCE TALKS & POSTERS

2024 *From belief to distribution: A psychometric study of prior elicitation methods.* TEAP 2024, Regensburg.

2022 *Sequential design planning: How re-evaluating sampling plans can improve your study designs.* DGPS Kongress 2022, Hildesheim.

2021 *Experts what's your prior? Methodological flexibility in prior elicitation.* 62nd Annual Meeting of the Psychonomic Society (poster presentation, online).

Where Wald and Jeffreys meet: A unified framework for sequential testing. FGME (online)

Same same but different? Comparing the Sequential Probability Ratio Test and the Sequential Bayes Factor Test. TEAP (online)

Bayes factor forecasts for continuous research design evaluation. SmiP IOPS Conference (online)

Gut geplant: Bayesianische Methoden für das Design effizienter Studien. Großes Promovierenden-Forum der Studienstiftung des Deutschen Volkes, Cologne

2020 *Eliciting prior distributions from experts: Does disagreement matter?* IOPS Winter Conference (poster presentation), Leiden

2019 *Methodological flexibility in prior elicitation and its effects on Bayesian model comparison.* EMPG, Heidelberg

Planning sequential Bayesian designs: Sample size prediction and stopping boundary specification. DAGStat, Munich.

2018 *Planning experiments the Bayesian way: A Shiny app for Bayes Factor Design Analysis.* Psychoco, Tübingen.

2017 *Validitätsstudie zur Messung von Risikobereitschaft im Finanzbereich.* DPPD, München (poster presentation).

SOFTWARE

Stefan, A. M. & Schönbrodt, F. D. *phackR.* An R-package and Shiny app for p-hacking simulation. https://github.com/astefan1/phacking_compendium ; https://shiny.psy.lmu.de/felix/ShinyPHack/

Schönbrodt, F. D. & **Stefan, A. M.** *BFDA.* An R-package and Shiny app for Bayes Factor Design Analysis. https://github.com/nicebread/BFDA ; http://shinyapps.org/apps/BFDA/

INTERNSHIPS, RESEARCH AND TEACHING ASSISTANT POSITIONS

08/2018 – 09/2018 **Research Assistant** (University of Regensburg)
Department for Methods of Educational Research, Supervisor: Sven Hilbert

03/2018 – 07/2018 **Research Assistant** (LMU Open Science Center)
Supervisor: Felix Schönbrodt

04/2017 – 12/2017 **Research Internship** (University of Amsterdam)
Department for Psychological Methods, Supervisor: Eric-Jan Wagenmakers

03/2013 – 03/2017 **Tutor Statistics I + II** (Ludwig-Maximilians-Universität)
Department for Psychological Methods and Diagnostics

07/2014 – 04/2015 **Research Internship / Assistant** (Ludwig-Maximilians-Universität)
Department for Social Psychology, Supervisor: Eva Lermer

OUTREACH

- I occasionally write blog posts for bayesianspectacles.org (6 blog posts), de.in-mind.org/ (1 article), and nicebread.de (2 blog posts)
- I post about my research on Twitter (@ephemeralidea) and BlueSky (@ephemeralidea.bsky.social)
- I have presented my research to industry experts for CorrelAid Netherlands and R-Ladies Amsterdam (https://www.youtube.com/watch?v=EBGKzDAAWYo)
- I have acted as a scientific advisor for the NIMH (Washington, DC).
- My research was featured on the podcasts ReproducibiliTea (# 25), Everything Hertz (# 151), BJKS Podcast (# 55)

REVIEWING

Journals

Attention, Perception, & Psychophysics; Behavior Research Methods; Collabra:Psychology; Communications Psychology; Computational Brain & Behavior; International Journal of Sports Science and Coaching; International Review of Social Psychology; Journal of Developmental Neuroscience; Journal of Mathematical Psychology; MetaPsychology; Multivariate Behavioral Research; Nature Communications; Nature Human Behaviour; PLOSBiology; Royal Society Open Science; Psychologica Belgica; TEST; Theory & Psychology

Research Funding

National Science Foundation; Psychological Science Accelerator

SERVICE

2024 – present	Psychological Science STAR Editorial Board
2023 – 2024	LMU Artificial Intelligence Hub Faculty Representative (LMU Munich)
2023 – 2024	Co-chair of the Open Science Initiative in Psychology (OSIP; LMU Munich)
2021 – 2022	Organizer of the Mellenbergh Lecture Series (University of Amsterdam)
2019 – 2022	Organizer of ReproducibiliTea Amsterdam (Journal Club)
2020 – 2022	PhD Student Representative (University of Amsterdam, Psychological Methods)
2019 – 2021	Co-Organizer of the annual JASP Workshop: Theory and Practice of Bayesian Hypothesis Testing
2015 – 2017	Psychology Student Council Member / President (Ludwig-Maximilians-Universität, Department of Psychology)

ADDITIONAL PROFESSIONAL QUALIFICATIONS AND CERTIFICATES

Teaching

Certified Examiner for Supervision and Assessment of Theses (University of Amsterdam)
Teaching Skills for Starting Lecturers (University of Amsterdam)

Other

Intercultural Sensibilization Certificate (Ludwig-Maximilians-Universität)
Cambridge Certificate in Advanced English (Level C2)