

# PAUL-CHRISTIAN BÜRKNER

## GENERAL INFORMATION

<i>Nationality</i>	German
<i>Date of Birth</i>	16 June 1991
<i>Place of Birth</i>	Marburg, Germany
<i>Email</i>	<a href="mailto:paul.buerkner@gmail.com">paul.buerkner@gmail.com</a>
<i>Website</i>	<a href="https://paul-buerkner.github.io/">https://paul-buerkner.github.io/</a>
<i>Publications</i>	68 (peer-reviewed only)
<i>Funding</i>	632,000 € (third-party only)
<i>Citations</i>	14,214 (source: GoogleScholar)
<i>h-index</i>	31 (source: GoogleScholar)

## WORK EXPERIENCE

<i>University of Stuttgart</i>	<i>since 2020</i>	Independent Junior Research Group Leader Independent Junior Research Group Leader for Bayesian Statistics at the Cluster of Excellence SimTech, University of Stuttgart, Germany.
	<i>2019-2020</i>	Postdoctoral Researcher Research Post-Doc at the chair of Computational Probabilistic Modeling (Prof. Dr. Vehtari), Aalto University, Department of Computer Science, Finland.
<i>Aalto University</i>	<i>2014-2019</i>	Research Associate and Lecturer Research associate at the chair of Statistics and Methods (Prof. Dr. Holling), University of Münster, Department of Psychology, Germany. Lecturer in Statistics I and II for the Bachelor's Degree Program in Psychology.
<i>University of Münster</i>		

## HIGHER EDUCATION

<i>PhD in Psychology</i>	<i>2014-2017</i>	University of Münster Grade: Summa Cum Laude · Institute of Psychology Title: <i>Optimal Design and Bayesian Data Analysis</i> . Received multiple awards (see the Awards section).
	<i>2014-2017</i>	University of Hagen Grade: 1.3 · Institute of Mathematics Thesis: <i>On the Statistics of Curie-Weiss-Distributed Random Variables</i> .
<i>Master of Mathematics</i>	<i>2013-2014</i>	University of Münster Grade: 1.1 · Institute of Psychology Thesis: <i>Adaptive Designs for Logistic Models with False Answers</i> .
<i>Master of Psychology</i>	<i>2011-2014</i>	University of Hagen Grade: 1.7 · Institute of Mathematics Thesis: <i>A Hull Operator for Complex Matroids</i> .
<i>Bachelor of Mathematics</i>	<i>2010-2013</i>	University of Münster Grade: 1.2 · Institute of Psychology Thesis: <i>Testing for Publication Bias in Diagnostic Meta-Analysis: A Simulation Study</i> .
<i>Bachelor of Psychology</i>		

## RESEARCH FUNDING

<i>DFG</i>	Bürkner P. C. (2022). Intuitive Joint Priors for Bayesian Multilevel Models. <i>Funder: German Research Foundation (DFG)</i> . 195,000 €.
<i>DFG</i>	Bürkner P. C. (2022). Bayesian Distributional Latent Variable Models. <i>Funder: German Research Foundation (DFG)</i> . 195,000 €.
<i>SimTech</i>	Guthke A. & Bürkner P. C. (2022). In Silico Models of Coupled Biological Systems. <i>Funder: Cluster of Excellence SimTech</i> . 285,000 €.
<i>Cyber Valley</i>	Bürkner P. C. (2021). Meta-Uncertainty in Bayesian Model Comparison. <i>Funder: Cyber Valley Research Fund</i> . 242,000 €.
<i>SimTech</i>	Bürkner P. C. & Sedlmair M. (2021). Machine Learning for Bayesian Model Building. <i>Funder: Cluster of Excellence SimTech</i> . 285,000 €.
<i>SimTech</i>	Bulling A. & Bürkner P. C. (2021). Bayesian Intent Prediction for Human-Machine Collaboration. <i>Funder: Cluster of Excellence SimTech</i> . 175,000 €.
<i>ELLIS</i>	Bulling A. Bürkner P. C., Kuchenbecker J. K., Pradel M., Schulte im Walde S., Staab S., Steinwart I., & Vu T. (2021). Stuttgart ELLIS Unit. <i>Funders: ELLIS Society and University of Stuttgart</i> .

## OPEN-SOURCE SOFTWARE

<i>brms</i>	Lead author · An R package for Bayesian multilevel models using Stan. Received multiple awards (see the Awards section).
<i>posterior</i>	Lead author · An R package for working with posterior distributions.
<i>thurstonianIRT</i>	Lead author · An R Package for fitting Thurstonian IRT models.
<i>posterioradb</i>	Author · A Posterior Database for Bayesian Inference.
<i>loo</i>	Author · An R package for approximate leave-one-out cross-validation.
<i>bayesian</i>	Author · An Interface from brms to tidymodels.
<i>rstan</i>	Contributor · An R Interface to Stan.
<i>bayesplot</i>	Contributor · An R package for visualizing Bayesian models.
<i>projpred</i>	Contributor · An R package for projection predictive variable selection.
<i>emmeans</i>	Contributor · An R package for estimating marginal means.
<i>Bayesflow</i>	Contributor · A Python library for simulation-based Bayesian inference.

## AWARDS

<i>SIPS</i>	2020 · Mission award of the Society for Improving Psychological Science (SIPS) for brms.
<i>SIPS</i>	2020 · Commendation award of the Society for Improving Psychological Science (SIPS) for brms.
<i>University of Münster</i>	2018 · Award for the best dissertation 2017-2018 in Psychology at the University of Münster.
<i>German Society for Psychology</i>	2017 · Gustav A. Lienert Award for the best methodological dissertation in Psychology awarded by the German Society for Psychology (DGPs).
<i>University of Münster</i>	2017 · Award for the best lecture at the Institute of Psychology in Münster.

## SELECTED SCIENTIFIC INVOLVEMENT

<i>Organizer</i>	2022 · Organizer of the 1st International SimTech Summer School, University of Stuttgart. Co-Organizers: Benjamin Unger and Kristyna Pluhackova.
<i>Faculty Member</i>	since 2021 · Faculty Member of the International Max Planck Research School for Intelligent Systems (IMPRS-IS; <a href="https://imprs.is.mpg.de/">https://imprs.is.mpg.de/</a> ).
<i>Member</i>	since 2021 · Member of Cyber-Valley ( <a href="https://cyber-valley.de/en">https://cyber-valley.de/en</a> ).
<i>Member</i>	since 2021 · Member of the ELLIS Society ( <a href="https://ellis.eu/">https://ellis.eu/</a> ).
<i>Founding Member</i>	since 2021 · Founding member of the Stuttgart ELLIS Unit ( <a href="https://ellis.eu/units/stuttgart">https://ellis.eu/units/stuttgart</a> ).
<i>Member</i>	since 2018 · Member of the Stan Development Team ( <a href="https://mc-stan.org/">https://mc-stan.org/</a> ).
<i>Consultant</i>	since 2018 · Academic consultant in industry. Selection: Bayer (2018), Novartis (since 2021).
<i>Editor</i>	2018 – 2020 · Associate editor of Biostatistics.
<i>Reviewer</i>	since 2014 · Reviewer for International Journals and Conferences. Selection: Bayesian Analysis, Behavior Research Methods, Biometrical Journal, Journal of Machine Learning Research, Journal of Probability and Statistics, Journal of Statistical Software, Journal of the Royal Statistical Society, Nature Human Behaviour, Psychological Methods, Psychometrika, Psychonomic Bulletin and Review, Statistics in Medicine.

## SELECTED TALKS

<i>DagStat Conference</i>	2022 · Hamburg · Contributed Talk Title: <i>The sparse polynomial chaos expansion: a fully Bayesian approach with joint priors on the coefficients and global selection of terms.</i>
<i>Psychoco Conference</i>	2021 · online · Keynote Title: <i>Bayesian Item Response Models.</i>
<i>Oslo UseR Group</i>	2021 · online · Invited Talk Title: <i>Bayesian multilevel modeling with brms.</i>
<i>Oxford University</i>	2020 · online · Invited Talk Title: <i>Bayesian regression modeling.</i>
<i>Turku University</i>	2020 · online · Invited Talk Title: <i>Bayesian multilevel modeling with brms.</i>
<i>University of Dortmund</i>	2020 · online · Invited Talk Title: <i>Bayesian multilevel modeling with brms.</i>
<i>Bayer</i>	2020 · online · Invited Talk Title: <i>Bayesian multilevel modeling with brms.</i>
<i>Stat. Methods for Linguistics</i>	2019 · Potsdam · Keynote Title: <i>A Principled Bayesian Workflow for Data Analysis.</i>
<i>University of Duisburg-Essen</i>	2019 · Essen · Invited Talk Title: <i>A Principled Bayesian Workflow for Data Analysis.</i>
<i>DGPs Conference</i>	2019 · Kiel · Contributed Talk Title: <i>Improving Convergence Diagnostics for MCMC Sampling Algorithms.</i>
<i>Stan Conference</i>	2019 · Cambridge · Contributed Talk Title: <i>Leave-Future-Out Cross-Validation for Bayesian Time-Series Models.</i>
<i>Multilevel Conference</i>	2019 · Utrecht · Keynote Title: <i>Bayesian Multilevel Modeling with brms and Stan.</i>

<i>DagStat</i>	2019 · Munich · Contributed Talk Title: <i>Leave-Future-Out Cross-Validation for Bayesian Time-Series Models.</i>
<i>Stan Conference</i>	2018 · Helsinki · Contributed Talk Title: <i>Custom Response Distributions in brms.</i>
<i>EAM Conference</i>	2018 · Jena · Contributed Talk Title: <i>Handling Ordinal Predictors in Regression Models via Monotonic Effects.</i>
<i>Bayes@Lund</i>	2018 · Lund · Keynote Title: <i>Why Not to be Afraid of Priors.</i>
<i>DGPs Conference</i>	2017 · Tübingen · Keynote Title: <i>Optimal Design and Bayesian Data Analysis.</i>
<i>eRum Conference</i>	2016 · Poznan · Contributed Talk Title: <i>brms: An R Package for Bayesian Multilevel Models using Stan.</i>
<i>Int. Workshop on Simulation</i>	2015 · Vienna · Contributed Talk Title: <i>Adaptive Designs for Logistic Models with False Answers.</i>
<i>DGPs Conference</i>	2015 · Jena · Contributed Talk Title: <i>Optimal Design of Non-Parametric Two-Sample Tests.</i>

## LECTURES

<i>University of Stuttgart</i>	2022 · Center for Simulation Science and Department of Computer Science Title: <i>Bayesian Statistics and Probabilistic Machine Learning.</i> No evaluation available.
<i>University of Stuttgart</i>	2021 · Center for Simulation Science Title: <i>ML Sessions: Bayesian Statistics.</i> No evaluation available.
<i>Aalto University</i>	2019 · Department of Computer Science Title: <i>Bayesian Data Analysis.</i> No evaluation available. Contributed as TA.
<i>University of Münster</i>	2018-2019 · Department of Psychology Title: <i>Descriptive Statistics and Probability Theory.</i> Evaluation: 12.4 points (15 point <i>abitur</i> scale).
<i>University of Münster</i>	2018 · Department of Psychology Title: <i>Inferential Statistics.</i> Evaluation: 11.6 points (15 point <i>abitur</i> scale).
<i>University of Münster</i>	2017-2018 · Department of Psychology Title: <i>Descriptive Statistics and Probability Theory.</i> Evaluation: 12.5 points (15 point <i>abitur</i> scale).
<i>University of Münster</i>	2017 · Department of Psychology Title: <i>Inferential Statistics.</i> Evaluation: 11.8 points (15 point <i>abitur</i> scale).
<i>University of Münster</i>	2016-2017 · Department of Psychology Title: <i>Descriptive Statistics and Probability Theory.</i> Evaluation: 13.5 points (15 point <i>abitur</i> scale). Award for the best lecture in the winter semester 2016/2017.
<i>University of Münster</i>	2016 · Department of Psychology Title: <i>Inferential Statistics.</i> Evaluation: 12.8 points (15 point <i>abitur</i> scale).
<i>University of Münster</i>	2015-2016 · Department of Psychology Title: <i>Descriptive Statistics and Probability Theory.</i> Evaluation: 12.9 points (15 point <i>abitur</i> scale).

University of  
Münster

2015 · Department of Psychology  
Title: *Inferential Statistics*.  
Evaluation: 12.2 points (15 point *abitur* scale).

University of  
Münster

2014-2015 · Department of Psychology  
Title: *Descriptive Statistics and Probability Theory*.  
Evaluation: 11.9 points (15 point *abitur* scale).

## SEMINARS

University of  
Stuttgart

2022 · Center for Simulation Science  
Title: *Novel Methods in Simulation Science*.  
No evaluation available.

University of  
Stuttgart

2021 · Center for Simulation Science  
Title: *Advanced Topics in Simulation Science*.  
No evaluation available.

University of  
Münster

2018 · Department of Psychology  
Title: *Advanced Statistics II: Structural Equation Modeling and Bayesian Statistics*.  
Evaluation: 10.9 points (15 point *abitur* scale).

University of  
Münster

2018 · Department of Psychology  
Title: *Advanced Statistics II: Structural Equation Modeling and Bayesian Statistics*.  
Evaluation: 10.8 points (15 point *abitur* scale).

## SELECTED WORKSHOPS

University of  
Dortmund

2022 · Department of Statistics · 2 days  
Title: *Bayesian Statistics*.

University of  
Salzburg

2022 · Department of Psychology · 2 days  
Title: *Introduction to Bayesian Data Analysis*.

Oxford University

2021 · Department of Zoology · 4 days  
Title: *Bayesian Regression Modelling for Biologists*.

Research Cluster  
SMiP

2020 · Mannheim · 2 days  
Title: *Introduction to Stan: A Probabilistic Programming Language for Bayesian Inference*.

University of  
Aarhus

2020 · Department of Economics and Business Economics · 1 day  
Title: *Bayesian Model and Variable Selection*.

MPI for Human  
Development

2019 · Göttingen · 1 day  
Title: *Bayesian Multilevel Modeling*.

MPI for Emp.  
Aesthetics

2019 · Frankfurt · 2 days  
Title: *Bayesian Multilevel Modeling*.

Multilevel  
Conference

2019 · Utrecht · 1 day  
Title: *Introduction to Bayesian Data Analysis*.

DagStat  
Conference

2019 · Munich · 1 day  
Title: *Bayesian Data Analysis using Stan*.

University of  
Lausanne

2018 · Department of Psychology · 2 days  
Title: *Introduction to Meta-Analysis*.

University of  
Magdeburg

2018 · Department of Psychology · 4 days  
Title: *Introducing Basic and Advanced Bayesian Modelling*.

University of  
Aarhus

2018 · 4 days  
Title: *Advanced Bayesian Statistical Modeling*.

ETH Zurich

2018 · 1 day  
Title: *Classical and Bayesian Multi-Level Models in R*.

<i>University of Hamburg</i>	2017 · Department of Psychology · 2 days Title: <i>Fitting Multi-Level Models in R.</i>
<i>DPPD Conference</i>	2017 · Munich · 1 day Title: <i>Bayesian Multi-Level Models in R with brms.</i>
<i>University of Bern</i>	2017 · Department of Psychology · 3 days Title: <i>Bayesian Multi-Level Models in R with brms.</i>
<i>University of Münster</i>	2017 · Department of Psychology · 3 days Title: <i>Introduction to Bayesian Inference.</i>
<i>University Paris Decades</i>	2017 · 1 day Title: <i>Introduction to Meta-Analysis.</i>
<i>DGPs Conference</i>	2016 · Leipzig · 1 day Title: <i>Bayesian Multilevel Models in R using the Package brms.</i>

## CURRENT PHD STUDENTS

<i>University of Stuttgart</i>	since 2022 · Luna Fazio Topic: <i>Bayesian Distributional Latent Variable Models.</i>
<i>University of Stuttgart</i>	since 2022 · Soham Mukherjee Topic: <i>Probabilistic Models of Single-Cell Data.</i> Co-Advisor: Dr. Prof. Manfred Claassen
<i>University of Stuttgart</i>	since 2022 · Philipp Reiser Topic: <i>In Silico Models of Coupled Biological Systems.</i> Co-Advisor: Dr. Anneli Guthke
<i>University of Stuttgart</i>	since 2021 · Maximilian Scholz · Computer Science Topic: <i>Machine Learning for Bayesian Model Building.</i>
<i>University of Stuttgart</i>	since 2021 · Javier Aguilar · Computer Science Topic: <i>Intuitive Joint Priors for Bayesian Multilevel Models.</i>
<i>University of Stuttgart</i>	since 2021 · Marvin Schmitt · Computer Science Topic: <i>Meta-Uncertainty in Bayesian Model Comparison.</i>
<i>Aalto University</i>	since 2021 · Noa Kallioinen · Computer Science Topic: <i>Sensitivity Diagnostics in a Bayesian Workflow.</i> Primary Advisor: Prof. Aki Vehtari
<i>Aalto University</i>	since 2020 · Teemu Säilynoja · Computer Science Topic: <i>Convergence and Goodness-of-Fit Diagnostics in a Bayesian Workflow.</i> Primary Advisor: Prof. Aki Vehtari
<i>Aalto University</i>	since 2019 · Alejandro Catalania · Computer Science Topic: <i>Robust Bayesian Methods for Model and Variable Selection.</i> Primary Advisor: Prof. Aki Vehtari

## GRADUATED PHD STUDENTS

<i>University of Münster</i>	2018 – 2021 · Niklas Schulte · Psychology Topic: <i>Statistical Properties of Forced-Choice Questionnaires in Applicant Personality Measurements.</i> Primary Advisor: Prof. Heinz Holling
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## CURRENT POSTDOCTORAL RESEARCHERS

<i>University of Stuttgart</i>	since 2022 · Lei Shi Topic: <i>Bayesian Intent Prediction for Human-Machine Collaboration.</i> Co-Advisor: Prof. Andreas Bulling
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## KEY PUBLICATIONS

- 2022 Bürkner P. C. (2022). On the information obtainable from comparative judgments. *Psychometrika*. doi:10.1007/s11336-022-09843-z
- Catalina A., Bürkner P. C., & Vehtari A. (2022). Projection Predictive Inference for Generalized Linear and Additive Multilevel Models. *Artificial Intelligence and Statistics (AISTATS) Conference Proceedings*.
- 2021 Vehtari A., Gelman A., Simpson D., Carpenter B., & Bürkner P. C. (2021). Rank-normalization, folding, and localization: An improved Rhat for assessing convergence of MCMC (with discussion). *Bayesian Analysis*. 16(2), 667–718. doi:10.1214/20-BA1221
- Radev S., D'Alessandro M., Mertens U. K., Voss A., Köthe U., & Bürkner P. C. (2021). Amortized Bayesian Model Comparison with Evidential Deep Learning. *IEEE Transactions on Neural Networks and Learning Systems*. doi:10.1109/TNNLS.2021.3124052
- Paananen T., Piironen, J., Bürkner P. C., & Vehtari A. (2021). Implicitly Adaptive Importance Sampling. *Statistics and Computing*. 31(2), 1–19. doi:10.1007/s11222-020-09982-2
- 2020 Bürkner P. C., Gabry J., & Vehtari A. (2020). Approximate leave-future-out cross-validation for time series models. *Journal of Statistical Computation and Simulation*. 90(14), 2499–2523. doi:10.1080/00949655.2020.1783262
- Bürkner P. C., & Charpentier, E. (2020). Modeling Monotonic Effects of Ordinal Predictors in Regression Models. *British Journal of Mathematical and Statistical Psychology*. 73(3), 420–451. doi:10.1111/bmsp.12195
- 2018 Bürkner P. C. (2018). Advanced Bayesian Multilevel Modeling with the R Package brms. *The R Journal*. 10(1), 395–411. doi:10.32614/RJ-2018-017
- 2017 Bürkner P. C. (2017). brms: An R Package for Bayesian Multilevel Models using Stan. *Journal of Statistical Software*. 80(1), 1–28. doi:10.18637/jss.v080.i01
- 2016 Bürkner P. C., Doeblér P., & Holling H. (2016). Optimal design of the Wilcoxon-Mann-Whitney-test. *Biometrical Journal*. 59(1), 25–40. doi:10.1002/bimj.201600022

## FURTHER PUBLICATIONS

- 2022 Säilynoja, T., Bürkner P. C., & Vehtari A. (2022). Graphical Test for Discrete Uniformity and its Applications in Goodness of Fit Evaluation and Multiple Sample Comparison. *Statistics and Computing*.
- Pavone, F., Piironen, J., Bürkner P. C., & Vehtari A. (2022). Using reference models in variable selection. *Computational Statistics*.
- Schad D. J., Nicenboim B., Bürkner P. C., Betancourt M., & Vasishth S. (2022). Workflow Techniques for the Robust Use of Bayes Factors. *Psychological Methods*.
- Heck, D., Boehm, U., Böing-Messing, F., Bürkner P. C., ..., Hooijink, H. (2022). A Review of Applications of the Bayes Factor in Psychological Research. *Psychological Methods*.
- Malén T., Karjalainen T., Isojärvi J., Vehtari A., Bürkner P. C., ..., & Nummenmaa L. (2022). Age and sex dependent variability of type 2 dopamine receptors in the human brain: A large-scale PET cohort. *NeuroImage*.



Jordon M., Smith P., Long P., Bürkner P. C., Petrokofsky G. & Willis K. (2022). Can Regenerative Agriculture increase national soil carbon stocks? Simulated country-scale adoption of reduced tillage, cover cropping, and ley-arable integration using RothC-26.3. *Science of the Total Environment*.

Teetzen, F., Bürkner P. C., Gregersen, S., & Vincent-Höper, S. (2022). The Mediating Effects of Work Characteristics on the Relationship between Transformational Leadership and Employee Well-Being: A Meta-Analytic Investigation. *Journal of Environmental Research and Public Health*. doi:10.3390/ijerph19053133

2021 Bürkner P. C. (2021). Bayesian Item Response Modelling in R with brms and Stan. *Journal of Statistical Software*. 100(5). 1–54. doi:10.18637/jss.v100.i05

Driebe, J. C., Sidari, M., Dufner, M., von der Heiden, J. M., Bürkner P. C., Penke, L., Zietsch B. P., & Arslan, R. C. (2021). Intelligence can be detected but is not found attractive in videos and live interactions. *Evolution and Human Behavior*.

Kołczyńska M. & Bürkner P. C. (2021). Marketplace of indicators: Inconsistencies between country trends of measures of governance. *Political Research Exchange*.

Modrák M., Bürkner P. C., Sieger T., ..., Leos-Barajas V., Fiser K., & Hyaneek T. (2021). Detailed disease progression of 213 patients hospitalized with Covid-19 in the Czech Republic: An exploratory analysis. *PLOS ONE*.

Franke, L. K., Rattel, J. A., Miedl, S. F., Danböck, S. K., Bürkner, P. C., & Wilhelm, F. H. (2021). Intrusive memories as conditioned responses to trauma cues: an empirically supported concept?. *Behavior Research and Therapy*.

Dietel F., Möllmann A., Bürkner P. C., Wilhelm S., & Buhlmann U. (2021) Interpretation bias across body dysmorphic, social anxiety and generalized anxiety disorder – a multilevel, diffusion model account. *Cognitive Therapy and Research*.

Stecker, J., Bürkner P. C., Hellmann, J., Nestler, S., & Back, M. (2021). Prejudice at First Sight? First Impressions of Refugees are More Strongly Influenced by Targets' and Perceivers' Individual Characteristics Than by Sheer Group Affiliation. *Collabora: Psychology*.

Reynolds, J. & Bürkner P. C. (2021). Examining the Relationship Between Weapon Type and Relationship Type in American Homicides: A Bayesian Approach. *Homicide Studies*.

Kuck, N., Cafitz, L., Bürkner, P. C., Nosthoff-Horstmann, L., Wilhelm, S., & Buhlmann, U. (2021). Body dysmorphic disorder and self-esteem: A meta-analysis. *BMC Psychiatry*.

Hoppen L. M., Kuck N., Bürkner P. C., Karin E., Wootton B. M., & Buhlmann, U. (2021). Low intensity technology-delivered cognitive behavioral therapy for obsessive-compulsive disorder: A meta-analysis. *BMC Psychiatry*.

Winter, B. & Bürkner P. C. (2021). Poisson regression for linguists: A tutorial introduction to modeling count data with brms. *Language and Linguistics Compass*. doi:10.1111/lnc3.12439

2020 Bürkner P. C., Gabry J., & Vehtari A. (2020). Efficient leave-one-out cross-validation for Bayesian non-factorized normal and Student-t models. *Computational Statistics*.

Bürkner P. C. (2020). Analysing Standard Progressive Matrices (SPM-LS) with Bayesian Item Response Models. *Journal of Intelligence*. 8(1), 1–18. doi:10.3390/jintelligence8010005



Hartmann M., Agiashvili G., Bürkner P. C., & Klami A. (2020). Flexible Prior Elicitation via the Prior Predictive Distribution. *Uncertainty in Artificial Intelligence (UAI) Conference Proceedings*.

Radev S., Wieschen E. M., Voss A., & Bürkner P. C., (2020). Amortized Bayesian Inference for Models of Cognition. *International Conference on Cognitive Modelling (ICCM) Conference Proceedings*.

Schulte N., Holling H., & Bürkner P. C. (2020). Can High-Dimensional Questionnaires Resolve the Ipsativity Issue of Forced-Choice Response Formats? *Educational and Psychological Measurement*.

Gelman A., Vehtari A., Simpson D., Margossian, C. C., Carpenter, B., Yao, Y., Kennedy L., Gabry J., Bürkner P. C., & Modrák M. (2020). Bayesian Workflow. *ArXiv preprint*.

Paananen T., Catalina A., Bürkner P. C., & Vehtari A. (2020). Group Heterogeneity Assessment for Multilevel Models. *ArXiv preprint*.

Trempler, I., Bürkner P. C., El-Sourani N., Binder E., Reker P., Fink G. R., & Schubotz R. (2020). Impaired context-sensitive adjustment of behaviour in Parkinson's disease patients tested on and off medication: an fMRI study. *NeuroImage*. 212. 1–11. doi:10.1016/j.neuroimage.2020.116674

Landmeyer N. C., Bürkner P. C., Wiendl H., Ruck T., Hartung H. P., Holling H., Meuth S. G., & Johnen A. (2020). Disease-modifying treatments and cognition in relapsing-remitting multiple sclerosis: A meta-analysis. *Neurology*. doi:10.1212/WNL.00000000000009522

Dietel F., Zache C., Bürkner P. C., Schulte J., Möbius M., Bischof A., Wilhelm S., & Buhlmann U. (2020). Internet-based Interpretation Bias Modification for body dissatisfaction: A three-armed randomized controlled trial. *International Journal of Eating Disorders*. doi:10.1002/eat.23280

Deres T., Bürkner P. C., Klauke B., & Buhlmann U. (2020). The Role of Stigma during the Course of Inpatient Psychotherapeutic Treatment in a German Sample. *Clinical Psychology and Psychotherapy*. doi:doi:10.1002/cpp.2423

Busch, L., Utesch, T., Bürkner P. C., & Strauss, B. (2020). A Daily Diary of the Quantified Self – The Influence of Fitness App Usage on Psychological Well-Being, Body Listening and Body Trusting. *Journal of Sport & Exercise Psychology*. doi:10.1123/jsep.2019-0315

Williams D. R. & Bürkner P. C. (2020). Coding errors lead to unsupported conclusions: A critique of Hofmann et al. (2015). *Meta-Psychology*.

Hossiep R., Harnack, K., & Bürkner P. C. (2020). Goal setting in distributive and integrative negotiations: a meta-analysis. *PsyArXiv preprint*.

2019

Bürkner P. C., Schulte N., & Holling H. (2019). On the Statistical and Practical Limitations of Thurstonian IRT Models. *Educational and Psychological Measurement*. 79(5), 827–854. doi:10.1177/0013164419832063

Bürkner P. C., & Vuorre, M. (2019). Ordinal Regression Models in Psychology: A Tutorial. *Advances in Methods and Practices in Psychological Science*. 2(1), 77–101. doi:10.1177/2515245918823199

Bürkner P. C. (2019). thurstonianIRT: Thurstonian IRT Models in R. *Journal of Open Source Software*. doi:10.21105/joss.01662

Chen G., Bürkner P. C., Taylor P. A., Li Z., Yin L., Glen D. R., Kinnison J. K., Cox R. W., & Pessoa L. (2019). One Model to Rule Them All: An Integrative Approach to Matrix-Based Analyses in Neuroimaging Connectomics. *Human Brain Mapping*. 1–19. doi:10.1002/hbm.24686.

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