PAUL-CHRISTIAN BÜRKNER

GENERAL INFORMATION

Date of Birth 16 June 1991

Place of Birth Marburg, Germany

Vogelpothsweg 87, 44227 Dortmund, Germany Work Address

Email paul.buerkner@gmail.com

https://paul-buerkner.github.io/ Website

KEY SCIENTIFIC METRICS

101 (peer-reviewed only) **Publications**

Funding 1,303,000 € (third-party only)

15,943 (source: GoogleScholar) Citations

33 (source: GoogleScholar) h-index

WORK EXPERIENCE

Full Professor for Computational Statistics since 2023

TU Dortmund Full Professor for Computational Statistics, Department of Statistics, TU University

Dortmund University, Germany.

2020-2023 Independent Junior Research Group Leader

University of Independent Junior Research Group Leader for Bayesian Statistics at the Stuttgart Cluster of Excellence SimTech, University of Stuttgart, Germany.

2019-2020 Postdoctoral Researcher

Postdoctoral researcher at the chair of Computational Probabilistic Modeling Aalto University

(Prof. Dr. Vehtari), Aalto University, Department of Computer Science, Finland.

2014-2019 Research Associate

Research associate at the chair of Statistics and Methods (Prof. Dr. Holling), *University of*

University of Münster, Department of Psychology, Germany.

HIGHER EDUCATION

Münster

2014-2017 University of Münster

PhD in Psychology Grade: Summa Cum Laude · Institute of Psychology

> Title: Optimal Design and Bayesian Data Analysis. Received multiple awards (see the Awards section).

2014-2017 University of Hagen

Master of Grade: 1.3 · Institute of Mathematics

Mathematics Thesis: On the Statistics of Curie-Weiss-Distributed Random Variables.

> 2013-2014 University of Münster

Grade: 1.1 · Institute of Psychology Master of

Psychology Thesis: Adaptive Designs for Logistic Models with False Answers.

> 2011-2014 University of Hagen

Bachelor of Mathematics	Grade: 1.7 · Institute of Mathematics Thesis: <i>A Hull Operator for Complex Matroids</i> .
	2010-2013 University of Münster
Bachelor of Psychology	Grade: 1.2 · Institute of Psychology Thesis: Testing for Publication Bias in Diagnostic Meta-Analysis: A Simulation Study.
	RESEARCH FUNDING
DFG	Bürkner P. C. & Radev S. T. (2023). BayesFlow: Simulation Intelligence with Deep Learning. <i>Funder: German Research Foundation (DFG)</i> . 353,000 € .
DFG	Bürkner P. C. (2022). Intuitive Joint Priors for Bayesian Multilevel Models. <i>Funder: German Research Foundation (DFG)</i> . 238,000 € .
DFG	Bürkner P. C. (2022). Bayesian Distributional Latent Variable Models. <i>Funder: German Research Foundation (DFG)</i> . 238,000 € .
DFG	Bürkner P. C. & Bulling A. (2022). Amortized Bayesian Inference for Multilevel Models. <i>Funder: German Research Foundation (DFG)</i> . 232,000 € .
EXC SimTech	Guthke A. & Bürkner P. C. (2022). Data-Integrated Training of Surrogate Models for Uncertainty Quantification and Diagnostics of Complex Biological Systems. <i>Funder: Cluster of Excellence SimTech.</i> 285,000 € .
Cyber Valley	Bürkner P. C. (2021). Meta-Uncertainty in Bayesian Model Comparison. <i>Funder:</i> Cyber Valley Research Fund. 242,000 €.
EXC SimTech	Bürkner P. C. & Sedlmair M. (2021). Machine Learning for Bayesian Model Building. <i>Funder: Cluster of Excellence SimTech.</i> 285,000 € .
EXC SimTech	Bulling A. & Bürkner P. C. (2021). Bayesian Intent Prediction for Human-Machine Collaboration. <i>Funder: Cluster of Excellence SimTech.</i> 175,000 €.
ELLIS	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> .
SELECTED AWARDS	
GCPR	2023 · Best paper honorable mention award at the German Conference of Pattern Recognition (GCPR).
SIPS	2020 \cdot Mission award of the Society for Improving Psychological Science (SIPS) for brms.
SIPS	2020 · Commendation award of the Society for Improving Psychological Science (SIPS) for brms.
University of Münster	2018 · Award for the best dissertation 2017-2018 in Psychology at the University of Münster.
German Society for Psychology	2017 · Gustav A. Lienert Award for the best methodological dissertation in Psychology awarded by the German Society for Psychology (DGPs).

2017 \cdot Award for the best lecture at the Institute of Psychology in Münster.

2014 · Scholarship of the German National Academic Foundation (Studienstiftung des deutschen Volkes).

University of Münster

German National Acad. Foundation

OPEN-SOURCE SOFTWARE

 $\textit{brms} \qquad \qquad \text{Lead author} \cdot \text{ An R package for Bayesian regression models using Stan.}$

Received multiple awards (see the Awards section).

posterior Lead author · An R package for working with posterior distributions.

thurstonianIRT Lead author · An R Package for fitting Thurstonian IRT models.

BayesFlow Author · A Python library for simulation-based Bayesian inference.

posteriordb Author · A Posterior Database for Bayesian Inference.

loo Author · An R package for approximate leave-one-out cross-validation.

ggsimplex Author · An R package for simplex visualizations with ggplot2.

bayesim Author · An R package for simulations with Bayesian models.

bayehear Author · An R package for metrics to evaluate Bayesian models.

bayesfam Author · An R package for custom brms families.

bayesian Author · An R package to interface brms and tidymodels.

rstan Contributor · An R Interface to Stan.

bayesplot Contributor · An R package for visualizing Bayesian models.

projpred Contributor · An R package for projection predictive variable selection.

emmeans Contributor · An R package for estimating marginal means.

SELECTED PROFESSORSHIP CALLS

Full Professorship 2022 · Call for the Full Professorship (W3) in Computational Statistics,

Department of Statistics, TU Dortmund University, Germany. Accepted.

Full Professorship

2022 · Call for the Full Professorship (W₃) in Data Analytics and

Computational Statistics, Department of Computer Science, University of

Computational Statistics, Department of Computer Science, University of

Konstanz, Germany.

SELECTED SCIENTIFIC INVOLVEMENT

Organizer 2022 · Organizer of the 1st International SimTech Summer School, University of Stuttgart. Co-Organizers: Benjamin Unger and Kristyna Pluhackova.

Reviewer since 2022 · Reviewer for major funding agencies. Selection: German Research

Foundation (DFG).

Faculty Member of the International Max Planck Research School

for Intelligent Systems (IMPRS-IS; https://imprs.is.mpg.de/).

Member since 2021 · Member of Cyber-Valley (https://cyber-valley.de/en).

Member since 2021 · Member of the ELLIS Society (https://ellis.eu/).

Founding Member since 2021 · Founding member of the Stuttgart ELLIS Unit

(https://ellis.eu/units/stuttgart).

Member since 2018 · Member of the Stan Development Team (https://mc-stan.org/).

Consultant since 2018 · Academic consultant in industry. Selection: Bayer (2018), Novartis

(since 2021), Axem (since 2022).

Editor 2018 – 2020 · Associate editor of Biostatistics.

Reviewer 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, Nature Ecology & Evolution, Nature Human Behaviour, Philosophical Transactions, Psychological Methods, Psychometrika, Psychonomic Bulletin and Review,

Statistics in Medicine.

SELECTED TALKS

Oxford University 2023 · Oxford · Keynote

Title: Probabilistic Modeling for Ecology.

Princeton

2023 · online · Invited Talk

University

Title: An Introduction to Bayesian Statistics.

DagStat

2022 · Hamburg · Contributed Talk

Conference

Title: The sparse polynomial chaos expansion: a fully Bayesian approach with joint

priors on the coefficients and global selection of terms.

Psychoco

2021 · online · Keynote

Conference

Title: Bayesian Item Response Models.

Oslo UseR Group

2021 · online · Invited Talk

Title: Bayesian multilevel modeling with brms.

Oxford University

2020 · online · Invited Talk

Turku University

Title: Bayesian regression modeling.

2020 · online · Invited Talk Title: Bayesian multilevel modeling with brms.

TU Dortmund

2020 · online · Invited Talk

University

Title: Bayesian multilevel modeling with brms.

Bayer

2020 · online · Invited Talk

Title: Bayesian multilevel modeling with brms.

Stat. Methods for

2019 · Potsdam · Keynote

Linguistics

Title: A Principled Bayesian Workflow for Data Analysis.

University of

2019 · Essen · Invited Talk

Duisburg-Essen

Title: A Principled Bayesian Workflow for Data Analysis.

DGPs Conference

2019 · Kiel · Contributed Talk

Title: Improving Convergence Diagnostics for MCMC Sampling Algorithms.

Stan Conference

2019 · Cambridge · Contributed Talk

Title: Leave-Future-Out Cross-Validation for Bayesian Time-Series Models.

Multilevel

2019 · Utrecht · Keynote

Conference

Title: Bayesian Multilevel Modeling with brms and Stan.

DagStat

2019 · Munich · Contributed Talk

Title: Leave-Future-Out Cross-Validation for Bayesian Time-Series Models.

Stan Conference

2018 · Helsinki · Contributed Talk Title: Custom Response Distributions in brms.

EAM Conference

2018 · Jena · Contributed Talk

Title: Handling Ordinal Predictors in Regression Models via Monotonic Effects.

Bayes@Lund

2018 · Lund · Keynote

Title: Why Not to be Afraid of Priors.

DGPs Conference

2017 · Tübingen · Keynote

Title: Optimal Design and Bayesian Data Analysis.

eRum Conference

2016 · Poznan · Contributed Talk

Title: brms: An R Package for Bayesian Multilevel Models using Stan.

Int. Workshop on

2015 · Vienna · Contributed Talk

Simulation

Title: Adaptive Designs for Logistic Models with False Answers.

DGPs Conference

2015 · Jena · Contributed Talk

Title: Optimal Design of Non-Parametric Two-Sample Tests.

SELECTED LECTURES

Statistics and Data

2023 · TU Dortmund University

Science

Title: Applied Bayesian Data Analysis.

Statistics and Data 2023 · TU Dortmund University

Science Title: Computational Statistics.

Simulation Science 2022 · University of Stuttgart

Title: Bayesian Statistics and Probabilisitic Machine Learning.

Simulation Science 2021 · University of Stuttgart

Title: ML Sessions: Bayesian Statistics.

Computer Science 2019 · Aalto University

Title: Bayesian Data Analysis.

Contributed as TA.

Psychology 2014-2019 · University of Münster · 5 times

> Title: Descriptive Statistics and Probability Theory. Average Evaluation: 12.6 points (15 point abitur scale). Award for the best lecture in the winter semester 2016/2017.

Psychology 2015-2018 · University of Münster · 4 times

Title: Inferential Statistics.

Average Evaluation: 12.1 points (15 point abitur scale).

SELECTED SEMINARS

Simulation Science 2021-2022 · University of Stuttgart · 2 times

Title: Advanced Topics in Simulation Science.

No evaluation available.

2018 · University of Münster · 2 times Psychology

Title: Advanced Statistics II: Structural Equation Modeling and Bayesian Statistics.

Average Evaluation: 10.9 points (15 point abitur scale).

SELECTED WORKSHOPS

Oxford University 2023 · Department of Biology · 1 day

Title: Bayesian modeling for biologists using brms.

University of 2023 · Center of Methods · 2 days

Tübingen Title: Bayesian modeling with the brms package.

TU Dortmund 2022 · Department of Statistics · 2 days

University Title: Bayesian Statistics.

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

Oxford University 2021 · Department of Zoology · 4 days

Title: Bayesian Regression Modelling for Biologists.

Research Cluster 2020 · Mannheim · 2 days

> SMiPTitle: Introduction to Stan: A Probabilistic Programming Language for Bayesian

> > Inference.

University of 2020 · Department of Economics and Business Economics · 1 day

Aarhus Title: Bayesian Model and Variable Selection.

MPI for Human 2019 · Göttingen · 1 day Development Title: Bayesian Multilevel Modeling.

MPI for Emp. 2019 · Frankfurt · 2 days *Aesthetics* Title: Bayesian Multilevel Modeling.

Multilevel 2019 · Utrecht · 1 day

Conference Title: Introduction to Bayesian Data Analysis.

DagStat 2019 · Munich · 1 day

Conference Title: Bayesian Data Analysis using Stan. University of 2018 · Department of Psychology · 2 days

Lausanne Title: Introduction to Meta-Analysis.

University of 2018 · Department of Psychology · 4 days

Magdeburg Title: Introducing Basic and Advanced Bayesian Modelling.

University of 2018 · 4 days

Aarhus Title: Advanced Bayesian Statistical Modeling.

ETH Zurich 2018 · 1 day

Title: Classical and Bayesian Multi-Level Models in R.

University of 2017 · Department of Psychology · 2 days

Hamburg Title: Fitting Multi-Level Models in R.

DPPD Conference 2017 · Munich · 1 day

Title: Bayesian Multi-Level Models in R with brms.

University of Bern 2017 · Department of Psychology · 3 days

Title: Bayesian Multi-Level Models in R with brms.

University of 2017 · Department of Psychology · 3 days

Münster Title: Introduction to Bayesian Inference.

University Paris 2017 · 1 day

Decardes Title: Introduction to Meta-Analysis.

DGPs Conference 2016 · Leipzig · 1 day

Title: Bayesian Multilevel Models in R using the Package brms.

CURRENT PHD STUDENTS

TU Dortmund since 2022 · Florence Bockting · Statistics

University Topic: Simulation-Based Prior Distributions for Bayesian models.

TU Dortmund since 2022 · Luna Fazio · Statistics

University Topic: Bayesian Distributional Latent Variable Models.

University of since 2022 · Soham Mukherjee

Tübingen Topic: Probabilistic Models for scRNA Sequencing Data.

Co-Advisor: Prof. Manfred Claassen

University of since 2022 · Philipp Reiser · Computer Science

Stuttgart Topic: Data-Integrated Training of Surrogate Models for Uncertainty Quantification

and Diagnostics of Complex Biological Systems Models.

Co-Advisor: Dr. Anneli Guthke

University of since 2021 · Maximilian Scholz · Computer Science Stuttgart Topic: Machine Learning for Bayesian Model Builing.

University of since 2021 · Javier Aguilar · Computer Science Stuttgart Topic: Intuitve Joint Priors for Bayesian Multilevel Models.

University of since 2021 · Marvin Schmitt · Computer Science Stuttgart Topic: Meta-Uncertainty in Bayesian Model Comparison.

Aalto University since 2021 · Noa Kallioinen · Computer Science

Topic: Sensitivity Diagnostics in a Bayesian Workflow.

Primary Advisor: Prof. Aki Vehtari

Aalto University since 2020 · Teemu Säilynoja · Computer Science

Topic: Convergence and Goodness-of-Fit Diagnostics in a Bayesian Workflow.

Primary Advisor: Prof. Aki Vehtari

Aalto University since 2019 · Alejandro Catalania · Computer Science

Topic: Robust Bayesian Methods for Model and Variable Selection.

Primary Advisor: Prof. Aki Vehtari

GRADUATED PHD STUDENTS

University of Münster

2018 – 2021 · Niklas Schulte · Psychology

Topic: Statistical Properties of Forced-Choice Questionnaires in Applicant Personality

Measurements.

Primary Advisor: Prof. Heinz Holling

CURRENT POSTDOCTORAL RESEARCHERS

TU Dortmund

since 2023 · Daniel Habermann

University

Topic: Amortized Bayesian Inference for Multilevel Models.

University of

since 2022 · Lei Shi

Stuttgart

Topic: Bayesian Intent Prediction for Human-Machine Collaboration.

Co-Advisor: Prof. Andreas Bulling

University of Heidelberg

since 2021 · Stefan Radev

Topic: *Amortized Bayesian Inference*. Co-Advisor: Prof. Ullrich Köthe

ALL PUBLICATIONS

In Review

- 121) Bockting F., Radev, S. T., & **Bürkner P. C.** (in review). Simulation-Based Prior Knowledge Elicitation for Parametric Bayesian Models. *ArXiv preprint*.
- 120) Schmitt M., Radev S. T., & **Bürkner P. C.** (in review). Fuse It or Lose It: Deep Fusion for Multimodal Simulation-Based Inference. *ArXiv preprint*.
- 119) Schmitt M., Pratz V., Köthe U., **Bürkner P. C.**, & Radev S. T. (in review). Consistency Models for Scalable and Fast Simulation-Based Inference. *ArXiv* preprint.
- 118) Reiser P., Aguilar J. E., Guthke A., & **Bürkner P. C.** (in review). Uncertainty Quantification and Propagation in Surrogate-based Bayesian Inference. *ArXiv* preprint.
- 117) Scholz M., & **Bürkner P. C.** (in review). Prediction can be safely used as a proxy for explanation in causally consistent Bayesian generalized linear models. *ArXiv preprint*.
- 116) Scholz M. & **Bürkner P. C.** (in review). Posterior accuracy and calibration under misspecification in Bayesian generalized linear models. *ArXiv preprint*.
- 115) Catalina A., **Bürkner P. C.**, & Vehtari A. (in review). Latent space projection predictive inference. *ArXiv preprint*.
- 114) Elsemüller L., Olischläger H., Schmitt M., **Bürkner P. C.**, Köthe U., & Radev S.T. (in review). Sensitivity-Aware Amortized Bayesian Inference. *ArXiv* preprint.
- 113) Shi L., **Bürkner P. C.**, & Bulling A. (in review). Inferring Human Intentions from Predicted Action Probabilities. *ArXiv preprint*.
- 112) Raulo A., **Bürkner P. C.**, Dale J., English H., Finerty G., Lamberth C., Firth J. A., Coulson T., Knowles S. (in review). Social and environmental transmission spread different sets of gut microbes in wild mice. *BioRxiv preprint*.
- 111) Lingel, H., **Bürkner P. C.**, Melchers, K. G., & Schulte, N. (in review). Measuring Personality When Stakes Are High: Are Graded Paired Comparisons a More Reliable Alternative to Traditional Forced-Choice Methods? *PsyArXiv preprint*.

- 110) Schulte, N., Kaup, L., **Bürkner**, **P. C.**, & Holling, H. (in review). The Fakeability of Personality Measurement with Graded Paired Comparisons. *PsyArXiv preprint*.
- 109) Bagaïni, A., Liu, Y., Kapoor, M., Son, G., **Bürkner P. C.**, Tisdall, L., & Mata, R. (in review). Comparing the Temporal Stability and Convergent Validity of Risk Preference Measures: A Meta-Analytic Approach. *PsyArXiv preprint*.
- 108) Zetsche, U., Neumann, P., **Bürkner P. C.**, Renneberg, B., Koster, E. H. W., & Hoorelbeke, K. (in review). Computerized Cognitive Training to Reduce Rumination in Major Depression: A Randomized Controlled Trial. *PsyArXiv* preprint.
- 107) Bolzenkötter, T., **Bürkner P. C.**, Zetsche, U., & Schulze, L. (in review). Assessing the short-term effects of detached mindfulness on repetitive negative thinking and affect: A randomized controlled trial in daily life. *PsyArXiv* preprint.
- 2024 106) Kallioinen N., Paananen T., **Bürkner P. C.**, & Vehtari A. (2024). Detecting and diagnosing prior and likelihood sensitivity with power-scaling. *Statistics and Computing*.
 - 105) Elsemüller L., Schnuerch M., **Bürkner P. C.**, & Radev S. T. (2024). A Deep Learning Method for Comparing Bayesian Hierarchical Models. *Psychological Methods*.
 - 104) Kołczyńska M., **Bürkner P. C.**, Kennedy L., & Vehtari A. (2024). Trust in state institutions in Europe, 1989-2019. *Survey Research Methods*.
- 2023 103) **Bürkner P. C.**, Scholz M., & Radev S. T. (2023). Some models are useful, but how do we know which ones? Towards a unified Bayesian model taxonomy. *Statistics Surveys*. doi:10.1214/23-SS145
 - 102) **Bürkner P. C.**, Kröker I., Oladyshkin S., & Nowak W. (2023). A fully Bayesian sparse polynomial chaos expansion approach with joint priors on the coefficients and global selection of terms. *Journal of Computational Physics*. doi:10.1016/j.jcp.2023.112210
 - 101) Aguilar J. E. & **Bürkner P. C.** (2023). Intuitive Joint Priors for Bayesian Linear Multilevel Models: The R2D2M2 prior. *Electronic Journal of Statistics*. doi:10.1214/23-EJS2136
 - 100) Schmitt, M., Radev, S. T., & **Bürkner P. C.** (2023). Meta-Uncertainty in Bayesian Model Comparison. *Artificial Intelligence and Statistics (AISTATS) Conference Proceedings*.
 - 99) Schmitt, M., **Bürkner P. C.**, Köthe U., & Radev S. T. (2023). Detecting Model Misspecification in Amortized Bayesian Inference with Neural Networks. *Proceedings of the German Conference on Pattern Recognition (GCPR)*.
 - 98) Radev S. T., Schmitt M., Pratz V., Picchini U., Köthe U., & Bürkner P. C. (2023). JANA: Jointly Amortized Neural Approximation of Complex Bayesian Models. *Uncertainty in Artificial Intelligence (UAI) Conference Proceedings*.
 - 97) Schumacher L, **Bürkner P. C.**, Voss A., Köthe U., & Radev S. T. (2023). Neural Superstatistics: A Bayesian Method for Estimating Dynamic Models of Cognition. *Scientific Reports*. doi:10.1038/s41598-023-40278-3
 - 96) Modrák M., Moon A. H., Kim S., **Bürkner P. C.**, Huurre N., Faltejsková K., Gelman A., & Vehtari A. (2023). Simulation-Based Calibration Checking for Bayesian Computation: The Choice of Test Quantities Shapes Sensitivity. *Bayesian Analysis*. doi:10.1214/23-BA1404

- 95) Perini L., **Bürkner P. C.**, & Klami A. (2023). Estimating the Contamination Factor's Distribution in Unsupervised Anomaly Detection. *Proceedings of the International Conference on Machine Learning (ICML)*.
- 94) Riutort-Mayol G., **Bürkner P. C.**, Andersen M. R., Solin A., & Vehtari A. (2023). Practical Hilbert space approximate Bayesian Gaussian processes for probabilistic programming. *Statistics and Computing*. doi:10.1007/s11222-022-10167-2
- 93) Mikkola P., Martin O., Chandramouli S., ..., **Bürkner P. C.**, & Klami A. (2023). Prior knowledge elicitation: The past, present, and future. *Bayesian Analysis*. doi:10.1214/23-BA1381
- 92) Radev S. T., Schmitt M., Schumacher L., Elsemüller L., Pratz V., Schälte Y., Köthe U., & Bürkner P. C. (2023). BayesFlow: Amortized Bayesian Workflows With Neural Networks. *Journal of Open Source Software*. doi:10.21105/joss.05702
- 91) Rodriguez, J. E., Williams, D. R., & **Bürkner P. C.** (2023). Heterogeneous Heterogeneity by Default: Testing Categorical Moderators in Random-effects Meta-Analysis. *British Journal of Mathematical and Statistical Psychology*. doi:10.1111/bmsp.12299
- 90) Schmitt M., Habermann D., **Bürkner P. C.**, Köthe U., & Radev S. T. (2023). Leveraging Self-Consistency for Data-Efficient Amortized Bayesian Inference. *NeurIPS UniReps Workshop*.
- 89) Kołczyńska M. & **Bürkner P. C.** (2023). Modeling public opinion over time: A simulation study of latent trend models. *Journal of Survey Statistics and Methodology*. doi:10.1093/jssam/smad024
- 88) Arslan, R. C., Blake, K., Botzet, L., **Bürkner, P. C.**, DeBruine, L. M., Fiers, T., ..., & Stern, J. (2023). Not within spitting distance: salivary immunoassays of estradiol have subpar validity for cycle phase. *Psychoneuroendocrinology*. doi:10.1016/j.psyneuen.2022.105994
- 87) Zetsche, U., **Bürkner P. C.**, Bohländer, J., Renneberg, B., Röpke, S., & Schulze, L. (2023). Daily affect regulation in borderline personality disorder and major depression. *Clinical Psychological Science*. doi:10.1177/21677026231160709
- 86) Danböck, S. K., Franke, L. K., Miedl, S. F., Liedlgruber, M., **Bürkner P. C.**, & Wilhelm, F. H. (2023). Aversive-Audiovisual and Painful-Electrical Stimulation Cause Peritraumatic Dissociation: A Functional Magnetic Resonance Imaging Study. *Behaviour Research and Therapy*. doi:10.1016/j.brat.2023.104289
- 85) Zhang, J., **Bürkner, P. C.**,, Kiesel A., & Dignath D. (2023). How Emotional Stimuli Modulate Cognitive Control: A Meta-Analytic Review of Studies With Conflict Tasks. *Psychological Bulletin*. doi:10.1037/bul0000389
- 84) Ewendt, F., Schmitt, M., Kluttig, A., Kühn, J., ..., **Bürkner P. C.**, Föller, M., & Stangl, G. I. (2023). Association between vitamin D status and eryptosis results from the German National Cohort Study. *Annals of Hematology*. doi:10.1007/s00277-023-05239-w
- 83) **Bürkner P. C.** (2022). On the information obtainable from comparative judgments. *Psychometrika*. doi:10.1007/s11336-022-09843-z

2022

- 82) 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*. doi:10.1007/s11222-022-10090-6
- 81) 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*.

- 80) Pavone, F., Piironen, J., **Bürkner P. C.**, & Vehtari A. (2022). Using reference models in variable selection. *Computational Statistics*. doi:10.1007/s00180-022-01231-6
- 79) Schad D. J., Nicenboim B., **Bürkner P. C.**, Betancourt M., & Vasishth S. (2022). Workflow Techniques for the Robust Use of Bayes Factors. *Psychological Methods*. doi:10.1037/met0000472
- 78) Heck, D., Boehm, U., Böing-Messing, F., **Bürkner P. C.**, ..., Hoijtink, H. (2022). A Review of Applications of the Bayes Factor in Psychological Research. *Psychological Methods*. doi:10.1037/met0000454
- 77) 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*. doi:10.1016/j.neuroimage.2022.119149
- 76) Franke, L. K., Miedl, S. F., Danböck, S. K., Lohse, J., Liedlgruber, M., **Bürkner P. C.**, Pletzer B., & Wilhelm, F. H. (2022). Estradiol during (analogue-)trauma: risk- or protective factor for intrusive re-experiencing? *Psychoneuroendocrinology*. doi:10.1016/j.psyneuen.2022.105819
- 75) Pluhackova K., Schittny V., **Bürkner P. C.**, Siligan C., & Horner A. (2022). Multiple Pore Lining Residues modulate Water Permeability of GlpF. *Protein Science*. doi:10.1002/pro.4431
- 74) George J. P., **Bürkner P. C.**, Sanders T., Neumann M., Cammalleri C., Vogt J., & Lang M. (2022). Long-term forest monitoring unravels constant mortality rise in European forests. *Plant Biology*. doi:10.1111/plb.13469
- 73) Seaton F. M., Robinson D. A., Monteith D., Lebron I., **Bürkner P. C.**, Tomlinson S., Emmett B. A., & Smart S. M. (2022). Fifty years of reduction in sulphur deposition drives recovery in soil pH and plant communities. *Journaly of Ecology*. doi:10.1111/1365-2745.14039
- 72) 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*. doi:10.1016/j.scitotenv.2022.153955
- 71) Jordon M., Willis K., **Bürkner P. C.**, & Petrokofsky G. (2022). Rotational grazing and multispecies herbal leys increase productivity in temperate pastoral systems a meta-analysis. *Agriculture, Ecosystems & Environment*. doi:10.1016/j.agee.2022.108075
- 70) Jordon M., Willis K., **Bürkner P. C.**, Haddaway N., Smith P., & Petrokofsky G. (2022). Temperate Regenerative Agriculture; a win-win for soil carbon and crop yield? *Environmental Research Letters*. doi:10.1088/1748-9326/ac8609
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