PAUL-CHRISTIAN BÜRKNER

GENERAL INFORMATION

Date of Birth	16 June 1991
Place of Birth	Marburg, Germany
Work Address	Vogelpothsweg 87, 44227 Dortmund, Germany
Email	paul.buerkner@gmail.com
Website	https://paul-buerkner.github.io/

KEY SCIENTIFIC METRICS

Publications	103 (peer-reviewed only)
Funding	1,303,000 € (third-party only)
Citations	17,457 (source: GoogleScholar)
h-index	33 (source: GoogleScholar)

WORK EXPERIENCE

since 2023 — **Full Professor for Computational Statistics**

TU Dortmund University

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

2020-2023 — **Independent Junior Research Group Leader**

University of Stuttgart

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

2019-2020 — **Postdoctoral Researcher**

Aalto University

Postdoctoral researcher at the chair of Computational Probabilistic Modeling (Prof. Dr. Vehtari), Aalto University, Department of Computer Science, Finland.

2014-2019 — **Research Associate**

University of Münster

Research associate at the chair of Statistics and Methods (Prof. Dr. Holling), University of Münster, Department of Psychology, Germany.

HIGHER EDUCATION

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 Mathematics

Grade: 1.3 · Institute of Mathematics
Thesis: *On the Statistics of Curie–Weiss–Distributed Random Variables*.

2013-2014 — **University of Münster**

Master of Psychology

Grade: 1.1 · Institute 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: *A Hull Operator for Complex Matroids*.

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. *Funder: German Research Foundation (DFG)*. **353,000 €**.

DFG — Bürkner P. C. (2022). Intuitive Joint Priors for Bayesian Multilevel Models. *Funder: German Research Foundation (DFG)*. **238,000 €**.

DFG — Bürkner P. C. (2022). Bayesian Distributional Latent Variable Models. *Funder: German Research Foundation (DFG)*. **238,000 €**.

DFG — Bürkner P. C. & Bulling A. (2022). Amortized Bayesian Inference for Multilevel Models. *Funder: German Research Foundation (DFG)*. **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. *Funder: Cluster of Excellence SimTech*. **285,000 €**.

Cyber Valley — Bürkner P. C. (2021). Meta-Uncertainty in Bayesian Model Comparison. *Funder: Cyber Valley Research Fund*. **242,000 €**.

EXC SimTech — Bürkner P. C. & Sedlmair M. (2021). Machine Learning for Bayesian Model Building. *Funder: Cluster of Excellence SimTech*. **285,000 €**.

EXC SimTech — Bulling A. & Bürkner P. C. (2021). Bayesian Intent Prediction for Human-Machine Collaboration. *Funder: Cluster of Excellence SimTech*. **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. *Funders: ELLIS Society and University of Stuttgart*.

SELECTED AWARDS

GCPR — 2023 · **Best paper honorable mention award** at the German Conference of Pattern Recognition (GCPR).

SIPS — 2020 · **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).

University of Münster — 2017 · **Award for the best lecture** at the Institute of Psychology in Münster.

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

OPEN-SOURCE SOFTWARE

brms — Lead author · 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 Konstanz, Germany.

SELECTED SCIENTIFIC INVOLVEMENT

Chairman	2024 · Chairman of the appointment committee for the associate professorship in Causality at TU Dortmund University.
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	since 2021 · 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

Bayes on the Beach Conference	2024 · Gold Coast · Keynote Title: *Does Bayes have to be slow? A glimpse into amortized Bayesian inference*.
Oxford University	2023 · Oxford · Keynote Title: *Probabilistic Modeling for Ecology*.
Princeton University	2023 · online · Invited Talk Title: *An Introduction to Bayesian Statistics*.
DagStat Conference	2022 · Hamburg · Contributed Talk Title: *The sparse polynomial chaos expansion: a fully Bayesian approach with joint priors on the coefficients and global selection of terms*.
Psychoco Conference	2021 · online · Keynote Title: *Bayesian Item Response Models*.
Oslo UseR Group	2021 · online · Invited Talk Title: *Bayesian multilevel modeling with brms*.

Oxford University	2020 · online · Invited Talk Title: *Bayesian regression modeling.*
Turku University	2020 · online · Invited Talk Title: *Bayesian multilevel modeling with brms.*
TU Dortmund University	2020 · online · Invited Talk Title: *Bayesian multilevel modeling with brms.*
Bayer	2020 · online · Invited Talk Title: *Bayesian multilevel modeling with brms.*
Stat. Methods for Linguistics	2019 · Potsdam · Keynote Title: *A Principled Bayesian Workflow for Data Analysis.*
University of Duisburg-Essen	2019 · Essen · Invited Talk 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 Conference	2019 · Utrecht · Keynote 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 Simulation	2015 · Vienna · Contributed Talk 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 WORKSHOPS

Oxford University	2023 · Department of Biology · 1 day Title: *Bayesian modeling for biologists using brms.*
University of Tübingen	2023 · Center of Methods · 2 days Title: *Bayesian modeling with the brms package.*
TU Dortmund University	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*.

University of Hamburg
2017 · Department of Psychology · 2 days
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 Münster
2017 · Department of Psychology · 3 days
Title: *Introduction to Bayesian Inference*.

University Paris Decardes
2017 · 1 day
Title: *Introduction to Meta-Analysis*.

DGPs Conference
2016 · Leipzig · 1 day
Title: *Bayesian Multilevel Models in R using the Package brms*.

SELECTED TEACHING ACTIVITIES

Statistics and Data Science
2023 · TU Dortmund University
Lecture: *Applied Bayesian Data Analysis*.

Statistics and Data Science
2023 · TU Dortmund University
Lecture: *Computational Statistics*.

Statistics and Data Science
2023 · TU Dortmund University
Seminar: *Multilevel Models*.

Simulation Science
2022 · University of Stuttgart
Lecture: *Bayesian Statistics and Probabilisitic Machine Learning*.

Simulation Science
2021 · University of Stuttgart
Lecture: *ML Sessions: Bayesian Statistics*.

Simulation Science
2021-2022 · University of Stuttgart · **2 times**
Seminar: *Advanced Topics in Simulation Science*.

Psychology
2018 · University of Münster · **2 times**
Seminar: *Structural Equation Modeling and Bayesian Statistics*.
Average Evaluation: 10.9 points (15 point *abitur* scale).

Psychology
2014-2019 · University of Münster · **5 times**
Lecture: *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**
Lecture: *Inferential Statistics*.
Average Evaluation: 12.1 points (15 point *abitur* scale).

CURRENT PHD STUDENTS

TU Dortmund University
since 2024 · Lars Kühmichel · Statistics
Topic: *BayesFlow: Simulation Intelligence with Deep Learning*.
Co-Advisor: Prof. Stefan Radev

TU Dortmund University
since 2023 · Jacob Grytzka · Statistics
Topic: *Regularization in Generalized Linear and Additive Multilevel Models*.
Co-Advisor: Prof. Andreas Groll

TU Dortmund University
since 2022 · Florence Bockting · Statistics
Topic: *Simulation-Based Prior Distributions for Bayesian models*.

TU Dortmund University
since 2022 · Luna Fazio · Statistics
Topic: *Bayesian Distributional Latent Variable Models*.

University of Tübingen
since 2022 · Soham Mukherjee
Topic: *Probabilistic Models for scRNA Sequencing Data*.
Co-Advisor: Prof. Manfred Claassen

University of Stuttgart
since 2022 · Philipp Reiser · Computer Science
Topic: *Data-Integrated Training of Surrogate Models for Uncertainty Quantification and Diagnostics of Complex Biological Systems Models*.
Co-Advisor: Dr. Anneli Guthke

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

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

University of Stuttgart
since 2021 · Marvin Schmitt · Computer Science
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

GRADUATED PHD STUDENTS

Aalto University
2019 – 2023 · Alejandro Catalania · Computer Science
Topic: *Robust Bayesian Methods for Model and Variable Selection*.
Primary Advisor: Prof. Aki Vehtari

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 University
since 2024 · Šimon Kucharský
Topic: *Applications of Amortized Bayesian Inference*.

TU Dortmund University
since 2023 · Daniel Habermann
Topic: *Amortized Bayesian Inference for Multilevel Models*.

University of Stuttgart
since 2022 · Lei Shi
Topic: *Bayesian Intent Prediction for Human-Machine Collaboration*.
Co-Advisor: Prof. Andreas Bulling

FORMER POSTDOCTORAL RESEARCHERS

University of Heidelberg
2021 – 2023 · Stefan Radev
Topic: *Amortized Bayesian Inference*.
Became an assistant professor at Rensselaer Polytechnic Institute, Troy, USA.

ALL PUBLICATIONS

In Review

124) Bockting F., Radev, S. T., & **Bürkner P. C.** (in review). Simulation-Based Prior Knowledge Elicitation for Parametric Bayesian Models. *ArXiv preprint*.

123) Schmitt M., Radev S. T., & **Bürkner P. C.** (in review). Fuse It or Lose It: Deep Fusion for Multimodal Simulation-Based Inference. *ArXiv preprint*.

122) 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*.

121) Schmitt M., Habermann D., **Bürkner P. C.**, Köthe U., & Radev S. T. (in review). Leveraging Self-Consistency for Data-Efficient Amortized Bayesian Inference. *ArXiv preprint*.

120) Aguilar J. E. & **Bürkner P. C.** (in review). Generalized Decomposition Priors on R2. *ArXiv preprint*.

119) Reiser P., Aguilar J. E., Guthke A., & **Bürkner P. C.** (in review). Uncertainty Quantification and Propagation in Surrogate-based Bayesian Inference. *ArXiv preprint*.

118) 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*.

117) Scholz M. & **Bürkner P. C.** (in review). Posterior accuracy and calibration under misspecification in Bayesian generalized linear models. *ArXiv preprint*.

116) Catalina A., **Bürkner P. C.**, & Vehtari A. (in review). Latent space projection predictive inference. *ArXiv preprint*.

115) Elsemüller L., Olischläger H., Schmitt M., **Bürkner P. C.**, Köthe U., & Radev S.T. (in review). Sensitivity-Aware Amortized Bayesian Inference. *ArXiv preprint*.

114) 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*.

113) 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*.

112) 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*.

111) 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

110) Kallioinen N., Paananen T., **Bürkner P. C.**, & Vehtari A. (2024). Detecting and diagnosing prior and likelihood sensitivity with power-scaling. *Statistics and Computing*. doi:10.1007/s11222-023-10366-5

109) Elsemüller L., Schnuerch M., **Bürkner P. C.**, & Radev S. T. (2024). A Deep Learning Method for Comparing Bayesian Hierarchical Models. *Psychological Methods*.

108) Huber F., **Bürkner P. C.**, Göddeke D., & Schulte M. (2024). Knowledge-based modeling of simulation behavior for Bayesian optimization. *Computational Mechanics*. doi:10.1007/s00466-023-02427-3

107) Kołczyńska M., **Bürkner P. C.**, Kennedy L., & Vehtari A. (2024). Trust in state institutions in Europe, 1989-2019. *Survey Research Methods*.

106) Raulo A., **Bürkner P. C.**, Dale J., English H., Finerty G., Lamberth C., Firth J. A., Coulson T., & Knowles S. (2024). Social and environmental transmission spread different sets of gut microbes in wild mice. *Nature Ecology & Evolution*.

105) Schulte, N., Kaup, L., **Bürkner, P. C.**, & Holling, H. (2024). The Fakeability of Personality Measurement with Graded Paired Comparisons. *Journal of Business and Psychology*. doi:10.1007/s10869-024-09931-0

104) Schmitt M., Ewendt F., Kluttig A., Mikolajczyk R., Kraus B., Waetjen W., **Bürkner P. C.**, Stangl G., & Föller M. (2024). Smoking is associated with increased eryptosis, suicidal erythrocyte death, in a large population-based cohort. *Scientific Reports*. doi:10.1038/s41598-024-53258-y

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) 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

89) Shi L., **Bürkner P. C.**, & Bulling A. (2023). Inferring Human Intentions from Predicted Action Probabilities. *ArXiv preprint*. doi:10.48550/arXiv.2308.12194

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

2022

83) **Bürkner P. C.** (2022). On the information obtainable from comparative judgments. *Psychometrika*. doi:10.1007/s11336-022-09843-z

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

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February 27, 2024