PAUL-CHRISTIAN BÜRKNER

GENERAL INFORMATION

Date of Birth	16 June 1991
Nationality	German
Work Address	Universitätsstr. 32, 70569 Stuttgart, Germany
Email	paul.buerkner@gmail.com
Website	https://paul-buerkner.github.io/

KEY SCIENTIFIC METRICS

Publications	83 (peer-reviewed only)
Funding	950,000 € (third-party only)
Citations	12,293 (source: GoogleScholar)
h-index	36 (source: GoogleScholar)

WORK EXPERIENCE

since 2020 — **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

Research Post-Doc at the chair of Computational Probabilistic Modeling (Prof. Dr. Vehtari), Aalto University, Department of Computer Science, Finland.

2014-2019 — **Research Associate and Lecturer**

University of Münster

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.

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. (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*.

AWARDS

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

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

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*.

LECTURES

Simulation Science	2022 · University of Stuttgart Title: *Bayesian Statistics and Probabilisitic Machine Learning*. No evaluation available.
Simulation Science	2021 · University of Stuttgart Title: *ML Sessions: Bayesian Statistics*. No evaluation available.

Computer Science

2019 · Aalto University
Title: *Bayesian Data Analysis*.
No evaluation available. 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).

SEMINARS

Simulation Science

2021-2022 · University of Stuttgart · **2 times**
Title: *Advanced Topics in Simulation Science*.
No evaluation available.

Psychology

2018 · University of Münster · **2 times**
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 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.*

CURRENT PHD STUDENTS

University of Stuttgart
since 2022 · Florence Bockting
Topic: *Simulation-Based Prior Distributions for Bayesian models.*

University of Stuttgart
since 2022 · Luna Fazio
Topic: *Bayesian Distributional Latent Variable Models.*

University of Stuttgart
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

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 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

University of Heidelberg
since 2021 · Stefan Radev
Topic: *Amortized Bayesian Inference*.
Co-Advisor: Prof. Ullrich Köthe

ALL PUBLICATIONS

In Review

109) **Bürkner P. C.**, Scholz M., & Radev S. T. (in review). Some models are useful, but how do we know which ones? Towards a unified Bayesian model taxonomy. *ArXiv preprint*.

108) Aguilar J. E. & **Bürkner P. C.** (in review). Intuitive Joint Priors for Bayesian Linear Multilevel Models: The R2-D2-M2 prior. *ArXiv preprint*.

107) 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*.

106) Schmitt, M., **Bürkner P. C.**, Köthe U., & Radev S. T. (in review). Detecting Model Misspecification in Amortized Bayesian Inference with Neural Networks. *ArXiv preprint*.

105) Modrák M., Moon A. H., Kim S., **Bürkner P. C.**, Huurre N., Faltejsková K., Gelman A., & Vehtari A. (in review). Simulation-Based Calibration Checking for Bayesian Computation: The Choice of Test Quantities Shapes Sensitivity. *ArXiv preprint*.

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

103) Kallioinen N., Paananen T., **Bürkner P. C.**, & Vehtari A. (in review). Detecting and diagnosing prior and likelihood sensitivity with power-scaling. *ArXiv preprint*.

102) Elsemüller L., Schnuerch M., **Bürkner P. C.**, & Radev S. T. (in review). A Deep Learning Method for Comparing Bayesian Hierarchical Models. *ArXiv preprint*.

101) Schumacher L, **Bürkner P. C.**, Voss A., Köthe U., & Radev S. T. (in review). Neural Superstatistics: A Bayesian Method for Estimating Dynamic Models of Cognition. *ArXiv preprint*.

100) 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*.

99) Schulte, N., Kaup, L., Bürkner, P. C., & Holling, H. (in review). The Fakeability of Personality Measurement with Graded Paired Comparisons. *PsyArXiv preprint*.

98) Kołczyńska M., **Bürkner P. C.**, Kennedy L., & Vehtari A. (in review). Trust in state institutions in Europe, 1989-2019. *SocArXiv preprint*.

97) 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*.

2023

96) **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*.

95) Schmitt, M., Radev, S. T., & **Bürkner P. C.** (2023). Meta-Uncertainty in Bayesian Model Comparison. *Artificial Intelligence and Statistics (AISTATS) Conference Proceedings*.

94) 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*.

93) 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

92) Mikkola P., Martin O., Chandramouli S., ..., **Bürkner P. C.**, & Klami A. (2023). Prior knowledge elicitation: The past, present, and future. *Bayesian Analysis*.

91) 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)*.

90) 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

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*.

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) 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*.

86) 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*.

85) 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

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*.

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*.

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*.

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*.

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*.

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*.

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*.

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*.

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: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

69) Nohe C., Hüffmeier J., **Bürkner P. C.**, Mazei J., Sondern D., Runte A., Sieber F., & Hertel G. (2022). Unethical Choice in Negotiations: A Meta-Analysis on Gender Differences and Their Moderators. *Organizational Behavior and Human Decision Processes*.

68) 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

67) Kołczyńska M. & **Bürkner P. C.** (2022). Political trust as a cause and consequence of democracy: Longitudinal analysis of European data. *SocArXiv preprint*.

2021

66) **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

65) 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

64) Radev S., D'Alessandro M., Mertens U. K., Voss A., Köthe U., & **Bürkner P. C.** (2021). Amortized Bayesian Model Comparison with Evidental Deep Learning. *IEEE Transactions on Neural Networks and Learning Systems*. doi:10.1109/TNNLS.2021.3124052

63) 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

62) Williams, D. R., Rodriguez, J. E., & **Bürkner P. C.** (2021). Putting Variation into Variance: Modeling Between-Study Heterogeneity in Meta-Analysis. *PsyArXiv preprint*.

61) 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. *Evoluation and Human Behavior*.

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

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

58) 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*.

57) 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*.

56) 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*.

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

54) 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*.

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