BJÖRN S. SIEPE

Marburg, Germany

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EDUCATION

University of Marburg

October 2022 - Current

 $PhD\ Student,\ Scientific\ Assistant$

Psychological Methods Lab

Supervisor: Prof. Dr. Daniel Heck

Goethe University Frankfurt November 2020 - September 2022

M.Sc. Psychology

Heidelberg University October 2017 - September 2020

B.Sc. Psychology

Mannheim University October 2014 - August 2017

B.Sc. Economics

Hölderlin-Gymnasium Heidelberg September 2005 - June 2013

Abitur (A-levels)

WORK EXPERIENCE

University of Marburg

February 2024 - Current

Statistical Consultant, Center for Translational Clinical Psychology

Consulting on conceptualization, study planning, statistical analyses, and statistical programming.

Focus: Time series analyses and predictive modeling.

Freelance Work November 2022 - now

Statistical Consultant

Consulting on conceptualization, study planning, statistical analyses, and statistical programming for clinical psychological researchers from multiple research groups.

Focus: Cross-sectional and longitudinal network analyses

Goethe University Frankfurt

November 2021 - August 2022

Student Assistant, Departments for Psychological Methods

Assisting in teaching for master courses in statistics, creating teaching materials and R scripts for open learning platform PandaR, teaching tutorials for master-level statistics courses

Leiden University

March 2022 - June 2022

Research Intern, ERC-funded WARN-D Project (PI: Prof. Eiko Fried)

Working with experience sampling and passive sensor data in a project aiming to build an early-warning system for depression.

Tasks: Handling EMA & Smartwatch Data in R, Statistical Analyses (Time Series, Network Analyses), Participant Recruitment

German Depression Foundation, Research Centre

March 2021 - April 2021

Research Intern, STEADY-project (PI: Prof. Ulrich Hegerl)

Summarizing literature, exploring statistical modelling options for intensive longitudinal experience sampling data, designing experience sampling study, data management in R

University Hospital Frankfurt

October 2020 - October 2021

Student Assistant, Horizon 2020-funded Eat2BeNice project

Working with experience sampling, nutrition, and passive sensor data to explore the connection of lifestyle variables and affective instability, data management & analysis in R

PZN Nordbaden (psychiatric clinic)

February 2020 - March 2020

Clinical Intern

Psychotherapy intern, data management, structured interviews, assistance with diagnostics & therapeutic tasks

Institute for Psychosocial Prevention Heidelberg

October 2019 - December 2019

Student Assistant

Transcription of videotaped psychotherapy sessions, data management

TEACHING EXPERIENCE

Philipps University Marburg

Summer Semesters 2023 & 2024

Tutor

Course: Critical reading of research papers (bachelor's level course about methodological criteria of research)

Philipps University Marburg

Winter Semesters 2022-2023 & 2023-2024

Tutor

Course: Multivariate Statistics (bachelor's level course about regression and latent variable modeling)

Brainhack School 2023

Teaching Assistant

Courses: Introduction to git/GitHub, Introduction to Machine Learning in Python, Introduction to Open Data, Introduction to Data Visualization in Python

Goethe University Frankfurt

Summer Semester 2022

Tutor

Course: Research Methods and Evaluation II (master's level course about latent variable modeling)

PUBLICATIONS

10. **Siepe, B. S.**, Tutunji, R., Rieble, C. L., Proppert, R. K. K., & Fried, E. I. (2024). Associations between ecological momentary assessment and passive sensor data in a large student sample. *PsyArXiv Preprint*.

https://doi.org/10.31234/osf.io/ybns6

9. Langener, A., **Siepe, B. S.**, Elsherif, M. M., Niemeijer, K., Andresen, P. K., Akre, S., . . . Jacobson, N. C. (2024). A Template and Tutorial for Preregistering Studies Using Passive Smartphone Measures. *Behavior Research Methods*. In Press.

https://doi.org/10.31234/osf.io/p4xf8

- 8. **Siepe, B.S.**, Bartoš, F., Morris, T. P., Boulesteix, A., Heck, D. W., & Pawel (2024). Simulation Studies for Methodological Research in Psychology: A Standardized Template for Planning, Preregistration, and Reporting. *Psychological Methods*. In Press. https://doi.org/10.31234/osf.io/ufgy6
- 7. Siepe, B.S., Sander, C., Schultze, M., Kliem, A., Ludwig, S., Hegerl, U., & Reich, H. (2024). Time-Varying Network Models for the Temporal Dynamics of Depressive Symptomatology in Patients With Depressive Disorders: Secondary Analysis of Longitudinal Observational Data. *JMIR Mental Health*, 11:e50136.
 - https://doi.org/10.2196/50136
- Siepe, B.S., Kloft, M., Heck, D.W. (2024). Bayesian Estimation and Comparison of Idiographic Network Models. *Psychological Methods*. In Press. https://doi.org/10.31234/osf.io/uwfjc
- 5. Westhoff, M., Heshmati, S., **Siepe, B. S.**, Vogelbacher, C., Ciarrochi, J., Hayes, S. C., & Hofmann, S. G. (2024). Psychological flexibility and cognitive-affective processes in young adults' daily lives. *Scientific Reports* 14, 8182.
 - https://doi.org/10.1038/s41598-024-58598-3
- Siepe, B. S., Rieble, C. L., Tutunji, R., Rimpler, A., März, J., Proppert, R. K. K., & Fried, E. I. (2024). Understanding EMA Data: A Tutorial on Exploring Item Performance in Ecological Momentary Assessment Data. *PsyArXiv Preprint*. https://doi.org/10.31234/osf.io/dvj8g
- 3. Rimpler, A., Siepe, B. S., Rieble, C. L., Proppert, R. K., & Fried, E. I. (2024). Introducing FRED: Software for Generating Feedback Reports for Ecological Momentary Assessment Data. *Administration and Policy in Mental Health and Mental Health Services Research*, 1-11. https://doi.org/10.1007/s10488-023-01324-4
- 2. **Siepe, B. S.**, & Heck, D. W. (2023). Multiverse analysis for dynamic network models: Investigating the influence of plausible alternative modeling choices. *OSF Preprint*. https://doi.org/10.31219/osf.io/etm3u
- 1. Talia, A., Georg, A., **Siepe, B.S.**, Gullo, S., Miller-Bottome, M., Volkert, J., ... & Taubner, S. (2022). An exploratory study on how attachment classifications manifest in group psychotherapy. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 25(3), 286-298. https://doi.org/10.4081/ripppo.2022.653

INVITED TALKS

- 4. Exploration of Ecological Momentary Assessment Data. Invited Talk, Measurement is the new black consortium meeting, May 2024, online.
- 3. Historical and Recent Trends in the Forecasting Literature. Invited Talk, WARN-D Group Friday Science Meeting, Leiden University (February 2024), online.
- 2. Good Practices for Simulation Studies. Invited Talk, ReproducibiliTea Frankfurt (November 2023), online.
- 1. Journal of European Psychology Students & Academic Writing Primer. Invited Talk, EFPSA Research Summer School (July 2021), online.

WORKSHOPS

3. Analysis of Pre-Post Designs. 1.5 h Workshop, Department of Clinical Psychology and Psychotherapy, University of Marburg, Germany (March 2024).

- 2. Dynamic Network Analysis in R. 3 h Workshop, Department of Clinical Psychology and Psychotherapy, Goethe University Frankfurt, Germany (June 2023).
- 1. Introduction to Dynamic Network Analysis. 1.5 h Workshop, Department of Clinical Psychology and Psychotherapy, Goethe University Frankfurt, Germany (March 2023).

CONFERENCE PRESENTATIONS

2024

- 9. Bayesian Estimation and Comparison of Idiographic Network Models. Symposium Presentation, International Meeting of the Psychometric Society (IMPS), Prague, Czech Republic.
- 8. Quality Standards for Simulation Studies in Psychometrics. Panel Discussion Participant, International Meeting of the Psychometric Society (IMPS), Prague, Czech Republic.
- 7. Simulation Studies for Methodological Research in Psychology. Lightning Talk, Virtual Meeting of the Society for the Improvement of Psychological Science (SIPS), online.
- 6. Simulation Studies for Methodological Research in Psychology. Presentation, Virtual Meeting of the Society for Mathematical Psychology, online.

2023

- 5. Bayesian Estimation and Comparison of Idiographic Network Models. Symposium Presentation, Meeting of the German Society for Methods & Evaluation in Psychology (FGME), Konstanz, Germany.
- 4. Augmenting Self-Reports with Passive Sensor Data to Understand Changes in Mental Health. Symposium Presentation, Annual Convention of the American Psychological Society (APS), Washington D.C., US.*
- 3. Developing EMA Items to Build an Early Warning System for Depression (WARN-D Study). Symposium Presentation, Annual Convention of the American Psychological Society (APS), Washington D.C., US.
- 2. Using passive sensor data to understand changes in mental health outcomes. Symposium Presentation, International Convention of Psychological Science (ICPS), Brussels, Belgium.*

2022

1. Temporal Dynamics of Depressive Symptomatology. Presentation, Annual Meeting of the German Society for Psychiatry and Psychotherapy (DGPPN), Berlin, Germany.

SOFTWARE

1. Siepe, B.S. & Kloft, M. (2024). tsnet - Comparing and Visualizing Networks based on Time Series Data (R Package). Available on CRAN (https://cran.r-project.org/web/packages/tsnet/index.html).

GRANTS & AWARDS

Student Teaching Award

July 2024

Awarded by the student council psychology at the University of Marburg

DAAD Conference Stipend

July 2024

Amount: 950€

^{*}Shared first-authorship or coauthor with significant contributions to presentation

Marburg Research Academy Conference Funding

July 2024

Amount: 1,500€. Co-Applicant on behalf of Open Science Initiative University of Marburg

APS Conference Financial Assistance

March 2023

Amount: 400\$

Erasmus Internship Stipend

March 2022

Amount: 1.089€

German Federal Scholarship (Deutschlandstipendium)

October 2021

Amount: 3.600€ (over one year)

PROFESSIONAL TRAINING

Linear Algebra for Machine Learning, Imperial College London, Coursera	2022
Modeling the Dynamics of Intensive Longitudinal Data, Utrecht Summer School	2021
Introduction to Statistical Learning, StanfordOnline, edx Course	2021
Practical Time Series Analysis, SUNY, Coursera	2021
Improving your Statistical Inferences, TU Eindhoven, Coursera	2020

ACADEMIC SERVICE

Member of Doctoral Committee Department of Psychology, Uni Marburg	2023 - present
Member Open Science Initiative, Uni Marburg	2022 - present
Co-Organizer Brainhack Marburg	2023 & 2024
Co-Organizer Open Science Days Marburg	2023
Co-Host ReproducibiliTea Frankfurt	2022
Editorial Team, Journal of European Psychology Students	2021 - 2023
Student council psychology, Goethe University Frankfurt	2021 - 2022

COMMUNITY SERVICE

Student tutor at Asylarbeitskreis Heidelberg (refugee aid)	2015 - 2021
Co-host of yearly after-school orientation day, Hölderlin-Gymasium	2019 - 2021
Involvement with Jugend Rettet (refugee aid)	2017 - 2018
Assistant coach, youth soccer team of ASC Neuenheim	2013 - 2014

SKILLS

Languages German (mother tongue), English (fluent), French (basic skills)

Programming R, Python, Stan, Git

Analyses Network Analyses, Time Series Analyses, Machine Learning,

Bayesian Statistics

Other GIMP, LATEX, Markdown, Quarto, reveal.js

REVIEWING

Ad-Hoc reviewer for Administration and Policy in Mental Health and Mental Health Services Research; Brain, Behavior, & Immunity - Health; Acta Psychiatrica Scandinavica; Advances in Methods and Practices in Psychological Science; Child Psychiatry & Human Development.

Reviewer for the Bi-Annual Meeting (2024) of the German Psychological Society (DGPS).