

# POST-DOCTORAL RESEARCHER

# Dr. Julien P. Irmer

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#### **PROFILE**

Post-doctoral researcher with a background in mathematics and psychology and a Ph.D. in Psychological Methods. I develop statistical methods for complex data—drawing on simulation-based inference and integrating machine learning. My work is embedded in international, interdisciplinary collaborations and implemented in open-source software. I am enthusiastic about applying innovative teaching methods and promoting the critical and responsible use of AI in research and higher education.

#### **EDUCATION**

# Goethe University Frankfurt | 2019-2024 | Ph.D. in Psychological Methods

- Dr. rer. nat. (summa cum laude, excellent)
- Dissertation: "Model Selection and the Estimation of Statistical Power in Nonlinear Structural Equation Modeling", https://doi.org/10.21248/gups.87712

#### | 2017-2019 | Master of Science: Mathematics (Grade: 1,0)

 Thesis: "Linear and Quadratic Structural Equation Modeling - Studying the Unobservable"

#### | 2016-2021 | Master of Science: Psychology (Grade: 1,0)

 Thesis: "When Can Ordered Categorical Variables be Treated as Continuous in Quadratic and Interaction Structural Equation Modeling?"

| 2011-2017 | Bachelor of Science: Mathematics | 2011-2016 | Bachelor of Science: Psychology

# Adelaide High School, South Australia | 2009-2011 | South Australian Certificate of Education

• Translated Grade: 1.0

# TECHNICAL SKILLS

**Programming & Statistics** 

- R
- Python
- MATLAB
- Mplus
- SPSS

Computing Infrastructure

- Bash
- SLURM

**Document Preparation** 

- LaTeX
- RMarkdown, Quarto
- Microsoft Office

**Version Control** 

- Git
- GitHub

# LANGUAGES

- German (mother tongue)
- English (fluent)
- Spanish (Intermediate)

# **ACADEMIC POSITIONS**

# Humboldt-Universität zu Berlin | Since 2024 | Research Associate (Post-Doc)

- Psychological Methods lab
- Research focus: Power analysis, causal inference, nonlinear modeling, heterogeneity, continuous-time models, meta-analysis, adaptive algorithms; integrating simulation-based, nonparametric, and machine learning techniques
- Head: Prof. Dr. Manuel Voelkle

# Goethe University Frankfurt | 2019-2024 | Research Associate (Pre-Doc)

- Methodology Division lab
- Research focus: Nonlinear latent variable modeling, non-parametric estimation, model selection and simulation-based power estimation, adaptive algorithms
- Head: Prof. Dr. Andreas G. Klein

#### | 2017-2019 | Student Research Assistant

- Methodology Division lab
- Research focus: Quasi maximum likelihood methods and model selection
- Supervisor: Dr. Rebecca D. Büchner

#### | 2017-2018 | Research Internship

- Neuro lab
- Research focus: EEG data analyses and the influence of filter techniques on the discovery of the true signal

#### | 2015-2019 | Student Teaching Assistant

- Statistics in Mathematics
- Methodology Division lab in Psychology
- Teaching focus: Statistics in mathematics, psychology, environmental sciences and biology, Programming with R and Python

#### | 2012-2016 | Student Assistant

- Work and Organizational Psychology lab
- Focus: Data collection and organization for several hazard analyses at the workplace

# INDUSTRY EXPERIENCE

#### | 2015 | Internship

- Adam Opel AG
- International Technical Research
   Center
- Focus: Analyzing eye-tracking data from driving simulator studies to evaluate and improve the usability of in-car infotainment systems

# REVIEWING ACTIVITIES

#### **Journals**

- Psychological Methods
- Behavior Research Methods
- Multivariate Behavioral Research
- Journal of Affective Disorders

#### **Conference Contributions**

- Conference of the DGPs Methods and Evaluation Section 2025
- Early Career Member Meeting of the Methods and Evaluation
   Section of the German
   Psychological Society 2024

# EDITING ACTIVITIES

Schmidt, P., **Irmer, J. P.**, & Schermelleh-Engel, K. (2023, Guest Editors). Methodological Challenges of Complex Latent Mediator and Moderator Models. A Special Issue of Behavior Research Methods (BRM). <a href="https://www.springer.com/journal/13428/updates/23885444">https://www.springer.com/journal/13428/updates/23885444</a>

# **SCHOLARSHIPS AND AWARDS**

2025	Gustav-ALienert-Prize for the Best Dissertation 2023-2025 from the Methods and
	Evaluation Section of the German Psychological Society (DGPs): 750€
2025	Award for the Best Dissertation of the Natural Sciences in 2024, sponsored by the
	Association of Friends and Supporters of Goethe University: 10000€
2025	<b>Top Cited Article Recognition</b> : Co-author of the article "Does job crafting affect
2023	employee outcomes via job characteristics? A meta-analytic test of a key job crafting
	mechanism", recognized as one of the top cited papers published in the Journal of
	Occupational and Organizational Psychology in 2023.
2023	OER-Prize 2023 (Prämierte Open Educational Resources) at HessenHub (Netzwerk
	digitale Hochschullehre Hessen [network of digital teaching at universities in Hessen])
	for the course Statistik 1 together with the PandaR-Team Martin Schultze, Kai Nehler, et
	al. at <u>https://pandar.netlify.app/lehre/#bsc2</u> : 500€
2021	<b>Young-YAVIS-Award</b> from the institute of Psychology of Goethe University Frankfurt
	for outstanding teaching: 100€
2019	<b>Prize for the best Master's degree</b> of the academic year 2018/2019 at the Institute of
	Mathematics at Goethe University Frankfurt am Main (awarded by Alte Leipziger
	Lebensversicherung a. G. and the Association for the Promotion of Mathematics at
	Goethe University Frankfurt e.V.): 400€
2019 - 2019	Scholarship [Deutschlandstipendium] award to talented and high-achieving
	students Goethe University Frankfurt (Mathematics): 1800€
2017 - 2018	Scholarship [Deutschlandstipendium] award to talented and high-achieving
	students Goethe University Frankfurt (Mathematics): 3600€
2010	Certificate of Outstanding Academic Achievements for Mathematical Studies at
	Adelaide High School

# **FUNDING**

2023	<b>Travel grant</b> for FGME conference from the dean's office of the institute of Psychology
	of Goethe University Frankfurt: 110€
2023	<b>Travel grant</b> for Advanced Techniques for Longitudinal Data Analysis in Social Science
	(ATLAS) conference from the dean's office of the institute of Psychology of Goethe
	university Frankfurt: 200€
2020	Travel grant for the SEM Working Group Meeting 2020 conference in Vienna
	[conference was canceled due to the Corona pandemic] from the dean's office of the
	institute of Psychology of Goethe-University Frankfurt: 128€.

# COMMITEE WORK AND ACADEMIC SERVICE

- Since 2025 **Working-Group Member** on Replicability of Simulation Studies of the Section of the Methodology and Evaluation of the German Psychological Society
- Since 2023 **Representative for Junior Researchers** at the Methodology and Evaluation Section of the German Psychological Society [Jungwissenschaftler\*innenvertreter Fachgruppe Methoden und Evaluation der Deutschen Gesellschaft für Psychologie]
- 2022-2024 **Teaching Staff Representative in the Promotion Committee** of the institute of Psychology of Goethe University Frankfurt [Mitglied im Promotionsausschuss als Vertreter des Mittelbaus]

#### TEACHING EXPERIENCE

#### Workshops

2025 **Strukturgleichungsmodelle in den Bildungswissenschaften** Komplexere Modellierung latenter Variablen in R [Structural Equation Models in Educational Sciences: Advanced Modeling of Latent Variables in R] for GRADE-Education at Goethe University Frankfurt, Level: PhD, (Fall 2024)

2022 **Einführung in die Strukturgleichungsmodellierung mit Mplus** [An Introduction to Structural Equation Modeling with Mplus] together with Martin Schultze for GRADE at Goethe University Frankfurt, Level: PhD, (Fall 2022)

#### As Lecturer at Humboldt-Universität zu Berlin

Since 2024 **Seminar** Special Topics in Psychology: Developing and Examining Psychological Methods using Artificial Intelligence, Level: M.Sc. (Spring 2025)

Lecture Multivariate Research Methods, Level: M.Sc. (Fall 2024)

Seminar Multivariate Research Methods (in R), Level: M.Sc. (Fall 2024)

**Seminar** Special Topics in Psychology: Developing and Examining Psychological Methods, Level: M.Sc. (Spring 2024)

Seminar Research Methods II (in R), Level: B.Sc. (Spring 2024, 2025)

#### As Lecturer at Goethe University Frankfurt

2021-2023 **Seminar** Advanced Research Methodology for Psychotherapists, Level: M.Sc. (Fall 2021, 2022, 2023)

Seminar Statistics I, Level: B.Sc. (Fall 2021, 2023)

2020-2023 **Seminar** Research Methods and Evaluation II, Level: M.Sc. (Spring 2020, 2021, 2022, 2023)

2019-2023 **Seminar** Statistics II (Advanced), Level: B.Sc. (Spring 2019, 2020, 2021, 2022, 2023)

2019-2022 **Seminar** Research Methods and Evaluation I, Level: M.Sc. (Spring 2019, 2020, 2021)

2020-2021 **Seminar** Research Course in Research Methods and Evaluation, Level: M.Sc. (Fall 2020)

# TEACHING EXPERIENCE (CONTINUED)

#### As Student Assistant at Goethe University Frankfurt

2017-2018 **Tutorium** Research Methods and Evaluation II, Level: M.Sc. (Spring 2018)

Tutorium Research Methods and Evaluation I, Level: M.Sc. (Fall 2017, 2018)

**Tutorium** Practical Course in Python for Psychologists, Level: M.Sc. (Fall 2017)

2015-2016 **Tutorium** Statistics 2 in Mathematics, Level: B.Sc. and M.Sc. (Spring 2016)

Tutorium Statistics 2 in Psychology, Level: B.Sc. (Spring 2015, 2016)

Tutorium Statistics 1 in Psychology, Level: B.Sc. (Fall 2015)

**Tutorium** Statistics 1 in Mathematics, Level: B.Sc. and M.Sc. (Fall 2015, 2016)

**Tutorium** Statistics for Environmental Science and Biologists: Statistics with R, Level:

M.Sc. (Fall 2015, 2016)

# SUPERVISION AND CONSULTATION

#### **Bachelor and Master Theses (Supervisor or Reviewer)**

2025 M.Sc.: Heterogeneity in SEM: Moderated Nonlinear Factor Analysis and Individual

Parameter Contribution Regression

2023 M.Sc.: Sample Selection Biases and Distributional Misspecifications in the Heckman

Model

2022 B.Sc.: Scale Shortening using Artificial Bee Colony Algorithms

M.Sc.: Scale Shortening using Artificial Bee Colony Algorithms

2021 M.Sc.: Sample Selection Effects in Mediation Analysis

2020 M.Sc.: Scale Shortening using Genetic Algorithms

#### Consultations at Humboldt-Universität zu Berlin

Since 2024 More than 27 consultations; at least: 4 Prof./Post-Doc Level, 10 Ph.D. Level, 11 M.Sc. Level, 2 B.Sc. Level

#### **Consultations at Goethe University Frankfurt**

2019-2024 More than 20 consultations; at least: 8 Prof./Post-Doc Level, 4 Ph.D. Level, 8 M.Sc. Level

#### **PUBLICATIONS**

#### **Peer-Reviewed Journals**

Escaffi-Schwarz, M., Gempp, R., & **Irmer, J. P.** (2025). Meta-analyzing the factor structure and reliability of measurement instruments: An R-based tutorial. International Journal of Psychology, 60(2), 1-9. <a href="https://doi.org/10.1002/ijop.70003">https://doi.org/10.1002/ijop.70003</a>

**Irmer, J. P.**, Klein, A. G., & Schermelleh-Engel, K. (2024). Model-implied simulation-based power estimation for correctly specified and distributionally misspecified models: Applications to nonlinear and linear structural equation models. Behavior Research Methods, 56, 8955–8991. <a href="https://doi.org/10.3758/s13428-024-02507-z">https://doi.org/10.3758/s13428-024-02507-z</a>

# **PUBLICATIONS (CONTINUED)**

- \* = shared first authorship
- Irmer, J. P., Klein, A. G., & Schermelleh-Engel, K. (2024). Estimating power in complex nonlinear structural equation modeling including moderation effects: The powerNLSEM R-package. Behavior Research Methods, 56, 8897-8931. <a href="https://doi.org/10.3758/s13428-024-02476-3">https://doi.org/10.3758/s13428-024-02476-3</a>
- Grønneberg, S.\* & **Irmer, J. P.\*** (2024). Non-parametric regression among factor scores: Motivation and diagnostics for nonlinear structural equation models. Psychometrika, 89(3), 822-850. https://doi.org/10.1007/s11336-024-09959-4
- Wallot, S.\*, **Irmer, J. P.**\*, Tschense, M., Kuznetsov, N., Højlund, A., & Dietz, M. (2023). A multivariate method for dynamic system analysis: Multivariate detrended fluctuation analysis using generalized variance. Topics in Cognitive Science, 00, 1-18. <a href="https://doi.org/10.1111/tops.12688">https://doi.org/10.1111/tops.12688</a>
- Holman, D., Escaffi-Schwarz, M., Vasquez, C., A., **Irmer, J. P.**, & Zapf, D. (2024). Does job crafting affect employee outcomes via job characteristics? A meta-analytic test of a key job crafting mechanism. Journal of Occupational and Organizational Psychology, 97, 47-73. <a href="https://doi.org/10.1111/joop.12450">https://doi.org/10.1111/joop.12450</a>
- Ehmann, P., Beavan, A., Spielmann, J., Mayer, J., Altmann, S., Ruf, L., Rohrmann, S., Irmer, J. P., & Englert, E. (2022). Perceptual-cognitive performance of youth soccer players in a 360°-environment Differences between age groups and performance levels. Psychology of Sport & Exercise, 59(102120), 1-7. https://doi.org/10.1016/j.psychsport.2021.102120
- Irmer, J. P., Kern, M., Schermelleh-Engel, K., Semmer, N. K., & Zapf, D. (2019). ISTA -The instrument for stress oriented job analysis a meta-analysis. Zeitschrift für Arbeits- & Organisationspsychologie [German Journal of Work and Organizational Psychology], 63(4), 217-237. https://doi.org/10.1026/0932-4089/a000312

#### **Books and Chapters with Peer-Review**

- Schermelleh-Engel, K., Gäde, J.C., & **Irmer, J. P.** (2021). R-Syntax direkte Programmierung zu Kapitel 14: Klassische Methoden der Reliabilitätsschätzung. Zusatzmaterialien zu H. Moosbrugger & A. Kelava (Hrsg.), Testtheorie und Fragebogenkonstruktion (3., vollständig neu bearbeitete, erweiterte und aktualisierte Auflage) [R syntax programming implementation of chapter 14: Classical methods of reliability estimation. Supplementary materials to H. Moosbrugger & A. Kelava (eds.), Test Theory and Questionnaire Construction (3rd, completely revised, expanded and updated edition)]. Heidelberg: Springer. <a href="http://www.lehrbuch-psychologie.springer.com">http://www.lehrbuch-psychologie.springer.com</a>.
- Schermelleh-Engel, K., Gäde, J.C., & **Irmer, J. P.** (2021). Mplus-Syntax direkte Programmierung zu Kapitel 14: Klassische Methoden der Reliabilitätsschätzung. Zusatzmaterialien zu H. Moosbrugger & A. Kelava (Hrsg.), Testtheorie und Fragebogenkonstruktion (3., vollständig neu bearbeitete, erweiterte und aktualisierte Auflage) [Mplus syntax programming implementation of chapter 14: Classical methods of reliability estimation. Supplementary materials to H. Moosbrugger & A. Kelava (eds.), Test Theory and Questionnaire Construction (3rd, completely revised, expanded and updated edition)]. Heidelberg: Springer. <a href="http://www.lehrbuch-psychologie.springer.com">http://www.lehrbuch-psychologie.springer.com</a>.

# **PUBLICATIONS (CONTINUED)**

\* = shared first authorship

#### **Work in Progress**

- **Irmer, J. P.**, & Voelkle, M. C. (in preparation). Model-implied simulation-based power estimation for the likelihood ratio test: Illustration for continuous time structural equation modeling testing parametric, non-parametric and machine learning link functions.
- **Irmer, J. P.**, & Mulder, J. D. (in preparation). Model-implied simulation-based power estimation for functions of parameters: Power analysis and sample size planning for indirect effects and other effects in mediation analysis.
- **Irmer, J. P.**, & Wallot, S. (in preparation). Simulating and examining data with varying marginal and multivariate Hurst exponent in multivariate time series.
- **Irmer, J. P.\***, & Mulder, J. D.\* (in preparation). Model-implied simulation-based power estimation for all vs. never effects for causal models: Using M-estimators in marginal structural models and structural nested mean models.
- Grønneberg, S.\* & **Irmer, J. P.\*** (in preparation). On individual-level residual analysis in structural equation models, and the conditional expectation structure of bivariate Vale-Maurelli distributions.
- Mulder, J.D.\*, & **Irmer, J. P\*** (in preparation). An introduction and comparison of marginal structural models, structural nested mean models and structural equation models for causal models in the social sciences.
- Kern, M., **Irmer, J. P.**, Dormann, C., & Zapf, D. (in preparation). Feeling down, thus facing more social stressors? A continuous time analysis of reciprocal effects between social stressors and employee well-being.
- Vink, P. A., Mulder, J. D., **Irmer, J. P.**, & Hamaker, E. L. (in preparation). Baseline covariate adjusted structural equation modeling: A new approach to account for time-invariant confounders in cross-lagged panel research.
- Arnold, M., **Irmer, J. P.**, & Voelkle, M. C. (in preparation). As easy as It gets: Exploring parameter heterogeneity with individual parameter contribution regression.
- Schmalbach, B., **Irmer, J. P.**, Schultze, M. & Schermelleh-Engel, K. (in preparation). Why you shouldn't use sum scores A comparison of the effect of using factor scores vs. sum scores: a meta-analytical approach.
- Hartig, J., **Irmer, J. P.**, & Köhler, C. (in preparation). On item infit and outfit in item response theories: Should we rethink cut of criteria?
- Winkler, A. D., **Irmer, J. P.**, Kern, M., & Zapf, D. (in preparation). The why matters: Motives for emotion work an experience sampling study.

### **ELECTRONIC RESOURCES**

- Irmer, J. P. (2024). powerNLSEM: Model-implied simulation-based power estimation (MSPE) for nonlinear structural equation models (SEM). R package version 0.1.2, <a href="https://cran.rho.nc/https://cran.rho
- Irmer J. P., Wallot S. (2023). mvDFA: Multivariate Detrended Fluctuation Analysis. R package version 0.0.4, <a href="https://CRAN.R-project.org/package=mvDFA">https://CRAN.R-project.org/package=mvDFA</a>. https://doi.org/10.32614/CRAN.package.mvDFA
- Schultze, M., **Irmer, J. P.**, & Nehler, K. J. (eds.) (2022). PandaR: Praktische Anwendungen der Datenanalyse in R. [Practical Applications of Data Analysis in R] <a href="https://pandar.netlify.app/">https://pandar.netlify.app/</a>
- Schmalbach, B. & **Irmer, J. P.**, & Schultze, M. (2019). ezCutoffs: Fit Measure Cutoffs in SEM. R-package version 1.0.1.
  - https://CRAN.R-project.org/package=ezCutoffs https://doi.org/10.13140/RG.2.2.16315.77600

#### INVITED TALKS

- **Irmer, J. P.** (2025, June). From nonparametric model selection to model-implied simulation-based power estimation: A machine-learning-inspired, adaptive simulation framework for complex structural equation models and beyond. Invited talk at the Dynamic Modeling Lab Meeting, Utrecht University, Netherlands.
- **Irmer, J. P.** (2025, June). From model selection to a novel simulation-based power estimation method: Applications to nonlinear SEM. Invited talk at the Kolloquium Psychologische Methodenlehre, Philipps University Marburg, Germany.
- **Irmer, J. P.** (2025, May 14). Model selection and the estimation of statistical power in nonlinear structural equation modeling. Invited presentation for the committee of the \*Preis der Vereinigung der Freunde und Förderer der Johann Wolfgang Goethe-Universität e.V.\*, Frankfurt, Germany.
- **Irmer, J. P.** (2025, January). Overcoming the Challenges of Nonlinear SEM: A Novel Simulation-Based Power Estimation Method. Invited talk at the psychology institute's colloquium of the University of Kassel, Germany.
- **Irmer, J. P.** & Grønneberg, S. (2023, September). Motivation and Diagnostics for Nonlinear Structural Equation Models Using Non-Parametric Regression Among Factor Scores. Invited talk at the Research Seminar in Data Science at the Norwegian Business School Oslo, Oslo, Norway.
- **Irmer, J. P.** (2023, April). On Problems and their Solutions in Nonlinear Structural Equation Modeling. Invited talk at the research colloquium of the psychological methods department at Philipps University Marburg, Germany.
- Irmer, J. P. (2022, October). PandaR as an Example for Open Teaching Practices. Invited talk at ReproducibiliTea Frankfurt of Frankfurt Open Science at Goethe-University Frankfurt, Germany. <a href="https://osf.io/g2tbw">https://osf.io/g2tbw</a>
- **Irmer, J. P.** (2021, June). Nichtlineare Strukturgleichungsmodelle [Nonlinear Structural Equation Modeling]. Invited talk at the research colloquium of the psychological methods department at Humboldt Universität zu Berlin, Germany.

# **COLLOQUIUM PRESENTATIONS**

- **Irmer, J. P.** (2025, July). Beyond the prompt: Practical AI use in research and teaching. Department of Psychological Methods, Humboldt-Universität zu Berlin, Germany.
- **Irmer, J. P.** (2025, May). From simulation studies to simulation-based power analysis: Tools for modern psychological research. Department of Psychological Methods, Humboldt-Universität zu Berlin, Germany.
- **Irmer, J. P.** (2024, August). My dissertation and beyond. Department of Psychological Methods, Humboldt-Universität zu Berlin, Germany.
- **Irmer, J. P.** (2022, June). Challenges in simulation studies with nonlinear effects, distributional misspecifications, and ordered-categorical data. Department of Psychological Methods and Evaluation, Goethe University Frankfurt, Germany

#### ORGANIZED EVENTS

**Early Career Member Meeting** of the Methods and Evaluation Section of the German Psychological Society together with Frick, S., and Scharf, F., and team (3-day meeting, October 2024).

# PANEL DISCUSSIONS AND ORGANIZED SYMPOSIA

- Gärtner, A., Badstuber, N., Schwake, M., Baierer, F., **Irmer, J. P.**, Henninger, M.; Pfeuffer, C., & Ortner, T. (2024, September). Panel Discussion: Gibt es einen Nachwuchsmangel in der Psychologie? Eine kritische Analyse. Panel Discussion auf dem 53. Kongress der Deutschen Gesellschaft für Psychologie (DGPS), 16-19 September 2024 in Vienna, Austria.
- Brandt, H., Hecht, M., Sengewald, M., Frick, S., & **Irmer, J. P.** (2024, September). Fachgruppen- (FG-) Symposium: The use of machine learning for psychological research: What are its opportunities to answer substantive research questions? Organized Symposium auf dem 53. Kongress der Deutschen Gesellschaft für Psychologie (DGPS), 16-19 September 2024 in Vienna, Austria.

#### **PRESENTATIONS**

- Irmer, J. P. (2025, March). Model Selection, Diagnostics, and Motivation for Nonlinear Structural Equation Models via Non-Parametric Regression among Factor Scores. Presentation at DagStat 2025 Joint Statistical Meeting of the DAGStat, Berlin, Germany.
- **Irmer, J. P.** (2025, March). Power Up Your Nonlinear SEM Analysis: Model-Implied Simulation-Based Power Estimation with powerNLSEM using Asymptotic Normality. Presentation at the Meeting of the Working Group Structural Equation Modeling 2025 in Chemnitz, Germany.
- Irmer, J. P. (2024, September). Estimating power in moderated mediation models: A model-implied simulation-based power estimation approach introducing the powerNLSEM R-package.

  Presentation at the 53rd Conference of the German Psychological Society (DGPS) in Vienna, Austria.
- Hartig, J., Köhler, C., & **Irmer, J. P.** (2024, September). Sollte bei der Beurteilung des Itemfit anhand von Infit und Outfit auf die Verwendung pauschaler Cut-Off-Werte verzichtet werden?

  Presentation at the 53rd Conference of the German Psychological Society (DGPS) in Vienna, Austria.
- Schultze, M., Irmer, J. P., Nehler, K. J. (2023). pandaR. CIHH23 Campus Innovation, Hamburg, Germany.
- **Irmer, J. P.**, Klein, A. G., & Schermelleh-Engel, K. (2023, September). Simulation-based semi parametric estimation of power in nonlinear SEM. Presentation at the 15th Conference of the Methods and Evaluation Section of the German Psychological Society (DGPs) in Konstanz, Germany.
- Grønneberg, S. & **Irmer, J. P.** (2023, September). Non-parametric regression among factor scores. Presentation at the conference for Frontier Research in Educational Measurement (FREMO) in Oslo, Norway.
- Kern, M., **Irmer, J. P.**, Dormann, C., & Zapf, D. (2023, September). Analyse komplexer Längsschnittdaten mit zeitkontinuierlichen Strukturgleichungsmodellen am Beispiel von sozialen Stressoren und Gesundheit. [Analysis of complex longitudinal data of social stressors and well-being using continuous time structural equation modeling]. Presentation at the 13. Tagung der Fachgruppe Arbeits-, Organisations- und Wirtschaftspsychologie in Kassel, Germany.
- Irmer, J. P., Klein, A. G., & Schermelleh-Engel, K. (2023, March). Estimating Power in Moderated Mediation Models and Endogenous Moderation Model: The powerNLSEM R-package. Presentation at the Meeting of the Working Group Structural Equation Modeling 2023 within the Advanced Techniques for Longitudinal Data Analysis in Social Science (ATLAS) conference in Bielefeld, Germany.

# PRESENTATIONS (CONTINUED)

- **Irmer, J. P.**, Klein, A. G., & Schermelleh-Engel, K. (2022, October). Challenges faced in simulation studies examining nonlinear SEM with distributional misspecification of continuous and ordered-categorical data. Presentation at the 2nd Methods Retreat for Young Researchers in Kassel, Germany.
- **Irmer, J. P.**, Klein, A. G., & Schermelleh-Engel, K. (2022, September). Treating ordered-categorical data as continuous in nonlinear SEM: The crucial role of the distribution of the dependent variables. Presentation at the 52th Conference of the German Psychological Society (DGPS) in Hildesheim, Germany.
- Klein, A. G. & **Irmer, J. P.** (2022, September). Causal interpretation of statistical models Can scientific philosophers give directions for statistical modeling? Presentation at the 52th Conference of the German Psychological Society (DGPS) in Hildesheim, Germany.
- **Irmer, J. P.**, Büchner, R. B., & Klein, A. G. (2021, March). A quasi-likelihood ratio test to evaluate heterogeneous growth. Presentation auf dem 1. Methoden Retreat für Jungwissenschaftler\*innen, 24-26 March 2021 in Aachen (Online), Germany.
- **Irmer, J. P.**, Klein, A. G., Gäde, J. C., & Schermelleh-Engel, K. (2021, March). When data are not perfect: Robustness of LMS compared to regression methods when categorical data are treated as continuous. Presentation at the Meeting of the Working Group Structural Equation Modeling 2021 in Vienna (Online), Austria.
- **Irmer, J. P.**, Büchner, R. B., Schneider, G., & Klein, A. G. (2019, September). A quasi-likelihood ratio test to evaluate nonlinear SEM using the quasi maximum likelihood method. Presentation at the 14th Conference of the Methods and Evaluation Section of the German Psychological Society (DGPs) in Kiel, Germany.
- Holman, D., Escaffi Schwarz, M., Vasquez Guerra, C., **Irmer, J. P.**, & Zapf, D. (2019, June). A meta-analytic test of the core mediational proposition of job crafting theory: Are the effects of job crafting on employee outcomes mediated by job characteristics? Presentation at the EAWOP Small Group Meeting on "Antecedents of Work Design" of the European Association of Work and Organizational Psychology in Amsterdam, the Netherlands.
- Irmer, J. P., Büchner, R. D., & Klein, A. G. (2019, February, March). Global Model Fit Test for Nonlinear SEM Using the Quasi Maximum Likelihood Method. Presentation at the Meeting of the Working Group Structural Equation Modeling in Tübingen, Germany.
- Irmer, J. P., Büchner, R. D., & Klein, A. G. (2018, September). Zur Robustheit des Quasi-Likelihood-Quotienten-Tests für nichtlineare Strukturgleichungsmodelle. [On the robustness of quasi-likelihood ratio tests for nonlinear structural equation models]. Presentation at the 51. Conference of the German Psychological Society (DGPS) in Frankfurt am Main, Germany.

# PRESENTATIONS (CONTINUED)

- Büchner, R. D., Klein, A. G., & **Irmer, J. P.** (2018, September). Quasi-Likelihood-Quotienten-Test zur Beurteilung der Gesamtmodellgüte von nichtlinearen Strukturgleichungsmodellen. [A quasi-likelihood ratio test for the evaluation of global model fit of nonlinear structural equation models]. Presentation at the 51. Congress of the German Psychological Society (DGPS), in Frankfurt am Main, Germany.
- Irmer, J. P., Kern, M., Semmer, N. K., & Zapf, D. (2015, September). Meta-analytical Results on the Challenge-Hindrance-Stressor Concept using the Instrument of Stress-oriented Job Analysis ISTA. Presentation at the 9th Congress of the Work and Organizational Psychology Section, in Mainz, Germany.