

Job announcement

At the Leibniz Institute for Prevention Research and Epidemiology – BIPS we have an opening in the Department of Biometry and Data Management within the Research Group “Statistical Methods for Causal Inference” (Lead: Prof Dr Vanessa Didelez) for a

PhD student in Statistics (f/m/d)

Salary Scale 13 of the German public sector salary system (TV-L)

The position starts as soon as possible (administrative clearance permitting). The contract is initially limited to 3 years (extension possible), 39.2 hours/week (100% position). The position is generally suitable for part-time employment.

This position is anchored in the interdisciplinary DFG research group “Lifespan AI” (<https://lifespanai.de/en>) with intersections to the Research Unit “Statistical Modeling of Secondary and Registry Data”. Lifespan AI will use high-dimensional, life-spanning data that will be assembled from longitudinal epidemiological studies and supplemented with biological, social, and lifestyle information to model, predict and explain the development of diseases over the life course. Specifically, the candidate will work on integrating methods of statistics / causal inference with methods of machine learning with applications in epidemiology.

We seek an excellent, open-minded and team-spirited PhD candidate. We are looking for a person with a background in (bio-) statistics, mathematics or related disciplines who is interested in longitudinal data analysis, causal inference and applications in epidemiology.

Responsibilities:

- To incorporate methods of machine learning into causal analyses e.g. adopting Targeted Maximum Likelihood Estimation (TMLE), Augmented Inverse Probability Weighting (AIPW) or Double/Debiased Machine Learning (DML)
- To advance prediction models to go from pure to causal predictions
- To develop protocols for target trial emulations based on the German Pharmacoepidemiological Research Database (GePaRD; <https://csh.nfdi4health.de/resource/110>) and to conduct corresponding analyses
- To conduct sensitivity and quantitative bias analyses
- To publish and present research results

Requirements:

- Master’s degree (or equivalent) in (bio-)statistics, mathematics, or related disciplines
- Advanced knowledge and proven track record in statistics and/or methodological aspects of epidemiology
- Experience in publishing in international journals is desirable
- Programming skills in SAS, R or similar
- Very good communication skills
- Very good knowledge of the German and English language
- Ability to work independently and as a member of a team
- Affinity for interdisciplinary work, motivation, commitment, and scientific curiosity

The Leibniz Institute for Prevention Research and Epidemiology – BIPS is one of the leading epidemiological research institutions in Germany and a member of the Leibniz Association. It maintains close collaborations with various partners in Germany and abroad.

We offer a structured PhD program, exciting research topics, a stimulating international environment, a good infrastructure, close ties to the University of Bremen and an engaged, supportive and cooperative team.

We aim to balance the diversity (f/m/d) of employees. We kindly encourage female and non-binary applicants to apply for this job. Recognized severely disabled persons will be preferred if they are equally qualified. The Institute strives to promote its employees’ work-life balance and has been certified for its family friendliness (audit “berufundfamilie”). We also offer additional support for international scholars to relocate to Germany through the Welcome Center of the UBremen Research Alliance.

Additional information about the institute can be found on our homepage: <https://www.bips-institut.de/en>

Enquiries to: Dr. Claudia Böhrhorst, phone: +49 421 218 56 946, email: boern@leibniz-bips.de

Please send your application in English or German with the usual documents (CV, letter of motivation, certificates) quoting the reference number **A24/ 25** by **January 20, 2025** by e-mail as a single PDF file to:

bewerbung@leibniz-bips.de.



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