

Post-Doctoral Position in Statistical Learning and Signal Processing for Biomedicine

Job Information

Post-Doctoral Position (3 Years, E14 Salary)

Location

Darmstadt, Germany

Team

Signal Processing Group of Prof. Abdelhak M. Zoubir
Robust Data Science Group of Prof. Michael Muma

Institution

Technische Universität Darmstadt

Funding

The position is part of the curATime project, funded by the German Federal Ministry of Education and Research (BMBF) within the Clusters for Future Framework.

Start date

March 2023

Closing Date

Applications are considered until the position is filled.

Keywords

Statistical Learning, Signal Processing, Graph Learning, High-Dimensional Data, False Discovery Rate (FDR) Control, Reproducible Biomarker Discovery, Electrocardiogram and Multi-Omics Data, Interdisciplinary Research

Job Description

Your task is to develop ground-breaking robust signal processing and statistical learning methods for high-dimensional biomedical databases. The focus lies on conducting fundamental research to derive scalable methods with robustness and statistical guarantees. The developed methods are applied within an interdisciplinary biomedical cooperative research project to discover novel and reproducible biomarker signatures. Your research will enable a better understanding of autonomic dysfunction, which is an important mechanism for the development of atherosclerotic diseases and their consequences. Furthermore, your research will be applied to extract clinically interpretable and robust graph and nonlinear regression models from high-dimensional multi-omics data.

Applicants should have, e.g., a PhD in electrical engineering with a specialization in signal processing and statistical learning, or a PhD in mathematical statistics. You should have a track record in your research field, as evidenced by publications in top quality journals.

To apply for this position, please send your CV, a one-page personal statement, full contact details of two referees, transcripts and publications to michael.muma@tu-darmstadt.de and abdelhak.zoubir@tu-darmstadt.de