Rebecka Jörnsten

Professor of Biostatistics and Applied Statistics   Ph.D. in Statistics, December 2001
Mathematical Sciences   University of California at Berkeley
University of Gothenburg/Chalmers
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1   Degrees and Appointments

Academic Degrees

- Ph.D. in Statistics, December 2001. University of California at Berkeley
- M.Sc. in Engineering Physics, May 1996. Lund Institute of Technology, Lund, Sweden

Professional Appointments

- 2016-present **Professor**, Mathematical Sciences, University of Gothenburg/Chalmers
- 2009-2016 **Associate Professor**, Mathematical Sciences, University of Gothenburg/Chalmers (Maternity leave June 2013 - October 2014)
- 2008 **Associate Professor with Tenure**, Department of Statistics and Biostatistics, Rutgers University
- 2002-2008 **Assistant Professor**, Department of Statistics and Biostatistics, Rutgers University, January 2002-June 2008.

2   Recent Grants and Awards

- WASP-DDLS postdoc grant. "Massively parallel in vivo gene editing and AI modeling to decipher brain tumor invasion". 2022-2024. PI, co-PI Sven Nelander.
- WASP-DDLS postdoc grant. "Data integration via auto-encoders with biological constraints". 2022-2024. PI, co-PI Mika Gustafsson.
- Wallenberg Foundation Math-AI PhD grant. "Generalization Bounds for Deep Neural Networks: Insight and Design". 2020-2024. PI. (co-PI Giuseppe Durisi)
- 2 Industry PhD projects with Centiro Solutions, 2020-2025 PI/co-PI (co-PI/PI Balazs Kulcsar)
- Albert Wallin's research award, The Royal Society of Arts and Sciences in Gothenburg, 2019
- Vetenskapsrådet (Swedish Research Council) Project Research Grant, "Robust and Interpretable Deep Learners for Predictive Modeling." (2020-2023) PI. (co-PI Johan Jonasson)
- Research Award. University of Gothenburg, Faculty of Science, 2017.
- Wallenberg Foundation Math-AI PhD grant. "Learning with Noisy Labels". 2018-2022. co-PI. (PI Johan Jonasson)
- Swedish Foundation for Strategic Research: Systems Biology. "Focus on glioblastoma: using patient-derived cells to decipher tumor expansion and evaluate new treatments.". (2017-2021). co-PI (PI Sven Nelander).
- Swedish Foundation for Strategic Research: Big Data. "Integrative precision medicine: local data, global context". (2017-2021). co-PI (PI Sven Nelander).
- Vetenskapsrådet (Swedish Research Council) Project Research Grant, "Network modeling for large-scale human cancer studies: data integration, validation and multiresolution networks." (2014-2017) PI.

3   Supervision

- Current supervision; Felix Held(funded by SSF), Selma Tabokovic(funded by WASP), Oskar Allerbo, Vincent Szolnoky(funded by Centiro Solutions).

- Co-supervision: Viktor Andersson(funded by Centiro solutions), Olof Zetterqvist(funded by WASP)

- Past supervision; Jonatan Kallus, Patrik Johansson(co), Teresia Kling(co), Jose Sanchez, Alexandra Jauhainen(co)

- 50+ MSc students, academic and industry

4   Scientific leadership, administration

- Chalmers AI Research Center (CHAIR) Management group, 20% effort

- Vice-Dean for Research and Research Infrastructure, Science Faculty, Gothenburg University, 2018-2024, 25% effort

5   Bibliometric parameters

Number of peer-reviewed publications (excluding manuscripts, submission and revised submissions):
50: 39 journal papers and 11 peer-reviewed book chapters or peer-reviewed conference papers.
H-index: 24 i10-index: 33 (Google Scholar)
Number of citations: 1987 (Google Scholar, 6535 citations including The Cancer Genome Atlas Pan-Cancer Analysis Project, Nat. Gen. 2013, doi: 10.1038/ng.2764 (published as collaborator).)
Scholar Google Page

6   Service to the profession (last 5 years)

Reviewer of Research Grants

- Norwegian Research Council, 2017-2021

- Swedish Foundation for Strategic Research(SSF), 2017, 2019, 2021

Committees (last 5 years)

- External reviewer of academic appointments, Linköping University, 2021, Uppsala 2021, Umeå 2019, SU 2018, Linköping University, 2016

- External reviewer, promotion application, KTH, 2017, SU 2021.

- External reviewer of applications for tenure track hiring, Uppsala, 2016, 2020

- Ph.D. Committee (last 5 years):

    - 2021: Chalmers, KI, Skövde. 2020: UmU, Chalmers, KI, UU. 2019: UU, Sahlgrenska. 2018: LU*2, SU. 2017: SU, KTH. 2016: NTNU, LU.

7   **Research Profile**

- Large-scale network modeling of multiomics data

- Regularization methods for interpretable neural networks

- Training neural networks in the presence of contaminated data

- Development of data integration methods (tensors, matrices and diverse data sources)