Leena C Vankadara

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Education

International Max Planck Research School for Intelligent Systems
PhD, Machine learning, 2018 - 2022.

Research interests. Causality, Overparameterized Learning, High-dimensional Statistics, Statistical-computational tradeoffs, Kernel Methods.

Advisors. Ulrike von Luxburg, Debarghya Ghoshdastidar.

University of Tübingen
Master thesis, **Advisor.** Ulrike von Luxburg Grade 1.0/1.0.

University of Hamburg
Master of Science, Intelligent Adaptive Systems, 2014 - 2017, Grade:1.10/1.0.

Birla Institute of Technology and Sciences, Pilani
Bachelor of Science, Mathematics, 2007 - 2012,
Bachelor of Engineering, Mechanical Engineering, 2007 - 2012,

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Experience

Amazon Research (AWS)
Applied Scientist II. Causality Lab. 2023 - present

Amazon Research (AWS)
Research Scientist Intern. Causality Lab. 2020 - 2021

Max Plank Institute for Intelligent Systems, Tübingen
Research Intern. Statistical Learning Theory Group. 2018

University of Hamburg
Research Assistant. 2014 - 2017

Teaching

Department of Computer Science, University of Tübingen
Teaching Assistant for Statistical Machine learning 2017 - 2019

Department of Mathematics, BITS Pilani
Teaching Assistant for the course Real Analysis 2011

Selected Publications

Leena C Vankadara*, Luca Rendsburg*, Ulrike von Luxburg, Debharghya Ghosdastidar. Interpolation and Regularization for Causal Learning. arXiv:2202.09054. **NeurIPS (2022).**

Luca Rendsburg*, **Leena C Vankadara***, Debharghya Ghosdastidar, Ulrike von Luxburg, A Consistent Estimator for Confounding Strength, Under Review **Journal of Causal Inference**.

Leena C Vankadara, Philipp Michael Faller, Michaela Hardt, Lenon Minorics, Debarghya Ghoshdastidar, Dominik Janzing. Causal Forecasting: Generalization Bounds for Autoregressive Models. **UAI (2022)**.

Mahalakshmi Sabanayagam, **Leena C Vankadara**, Debarghya Ghoshdastidar. Consistency of Clustering and Two-sample Testing of Graphons. **ICLR (2022)**.

Maximilian Fleissner, **Leena C Vankadara**, Debharghya Ghosdastidar, Explainability of Kernel Clustering, Under Review **SODA (2022)**.

Pascal Esser, **Leena C Vankadara**, Debarghya Ghoshdastidar. Learning Theory Can (Sometimes) Explain Generalisation in Graph Neural Networks. **NeurIPS (2021)**.

Leena C Vankadara, Sebastian Brodt, Ulrike von Luxburg, Debarghya Ghoshdastidar. Recovery Guarantees for Kernel-based Clustering under Non-parametric Mixture Models. **AISTATS (2021)**. **Oral presentation (3% of total submissions).**

Leena C Vankadara, Debarghya Ghoshdastidar. On the optimality of kernels for high-dimensional clustering. **AISTATS (2020)**.

Leena C Vankadara, Siavash Haghiri, Michael Lohaus, Faiz Ul Wahab, Ulrike von Luxburg, Insights into ordinal embedding algorithms: a systematic evaluation. **Preprint (2019).**

Leena C Vankadara, Ulrike von Luxburg. Measures of distortion for ML. **NeurIPS (2018)**.

Invited Talks

INRIA-LILLE, Nord Europe
WiDS Conference at Chemnitz,
SIAM Conference on Imaging Science,
The AI Club, NIT Calicut.
Seminar on Statistics and Data Science, TUM

Grants

PhD/Postdoc Grant, Tübingen AI Center

Reviewing

JMLR, ICML, AISTATS, NeurIPS, IJCAI.

Other Awards

Award Winning Graduate (top 1% of students). **University of Hamburg.**
Travel Award. **NeurIPS 2018.**
Top of the class in many Department (Mathematics) subjects and all elective courses. **BITS Pilani.**
National runner up in the Golden Design Challenge for the design of a high quality water purification system. **Indian Institute of Technology, Madras.**
National finalist in a design competition for the design of an Automated car parking system. **Indian Institute of Technology, Bombay.**
Scholarship for a fully funded Secondary Education. **Shri Kalyana Chakravarthy Trust.**
State level rank holder. **Indian National Mathematics Olympiad.**