CURRICULUM VITAE

Personal Details

- Name: Jääsaari, Jesse
- Born in May 1992 in Helsinki, Finland.
- Finnish citizen
- E-mail: jesse.jaasaari@gmail.com
- Home page: https://www.jessejaasaari.com
- Date of CV: May 27, 2024

Education and Degrees Completed

- September 2018: Doctor of Philosophy, Department of Mathematics and Statistics, University of Helsinki, Finland. Doctoral thesis "*Exponential Sums Related to Maass Cusp Forms*" was approved with the grade **passed with distinction**.
- December 2013: Master of Science, Department of Mathematics and Statistics, University of Helsinki, Finland. Master's thesis "*A Pretentious Approach to Estimating Character Sums*" was approved with the grade **Eximia cum laude approbatur**.
- December 2013: Bachelor of Science, Department of Mathematics and Statistics, University of Helsinki, Finland. Bachelor's Thesis "*Hölderin Lause*" (in Finnish for "*Hölder's Theorem*") was approved with the grade **5/5**.

Current Position

- 2023 - : Postdoctoral researcher, Department of Mathematics and Statistics, University of Turku, Finland.

Previous Work Experience

- 2020 - 2023: Postdoctoral research assistant, School of Mathematical Sciences, Queen Mary University of London, UK.
- 2019 - 2020: Postdoctoral researcher, Department of Mathematics and Statistics, University of Turku, Finland.
- January 2014 - September 2018: Doctoral student, Department of Mathematics and Statistics, University of Helsinki, Finland. Supervised by Prof. Anne-Maria Ernvall-Hytönen.
- September 2013 - December 2013: Research assistant, Number Theory Finland-project. Funded by the Academy of Finland (co-ordinated by the University of Oulu).

Research Interests

My research interests lie in analytic number theory with a focus on automorphic forms, automorphic representations and L-functions attached to those objects. I am also interested in mathematical physics (especially quantum chaos and scattering theory) in arithmetic settings. In addition, I am interested in representation theory and spectral theory in connection to analytic number theory.

Selected List of Publications

1. Ω-*Results For Exponential Sums Related To Maass Cusp forms for* $\mathrm{SL}_3(\mathbb{Z})$. Preprint.
2. (with S. Lester and A. Saha) *Mass Equidistribution for Saito-Kurokawa Lifts*. Submitted for publication.
3. *On Signs of Fourier Coefficients of Hecke-Maass Cusp Forms on* GL_3. Trans. Am. Math. Soc., Volume 376, No. 11 (2023), pp. 8193-8223.
4. (with S. Lester and A. Saha) *On Fundamental Fourier Coefficients of Siegel Cusp Forms of Degree 2*. J. Inst. Math. Jussieu. Volume 22, Issue 4 (2023), 1819 - 1869.

Selected Personal Research Funding and Grants

- Scholarship of the Finnish Cultural Foundation. Granted in January 2024, $37,000$ EUR.
- Scholarship of the Emil Aaltonen Foundation. Granted in April 2023, $37,000$ EUR.

- Scholarship of the Finnish Cultural Foundation. Granted in January 2020, 30,000 EUR.
- Scholarship of the Finnish Cultural Foundation. Granted in January 2019, 30,000 EUR.
- Funded position in Doctoral Programme in Mathematics and Statistics at the University of Helsinki starting in January 2017. Granted in November 2016.
- Scholarship of the Finnish Cultural Foundation for doctoral studies. Granted in February 2015, 24,000 EUR.
- Funded position in Doctoral Programme in Mathematics and Statistics at the University of Helsinki starting in January 2015. Granted in November 2014.

Teaching Experience

- Lecturer for the advanced LTTC (London Taught Course Centre) course "Adeles and L-functions" in Fall 2022.
- I have been a teaching assistant for several undergraduate and graduate courses in mathematics at the University of Helsinki: Elements of Cryptography (Spring 2014), Complex Analysis I (Fall 2014), Introduction to Analytic Number Theory (Fall 2014), Advanced Course in Complex Analysis (Spring 2015) and Introduction to Number Theory (Fall 2015).

Selected Awards and Honours

- Outstanding Doctoral Dissertation Award, Doctoral School of Natural Sciences, University of Helsinki, November 2018.
- Special award for an exceptional fast and successful completion of Master's degree, Awarded by the Faculty of Science, University of Helsinki, December 2013.
- Represented Finland at the 52nd International Mathematical Olympiad (IMO) in Amsterdam, the Netherlands, July 2011.

Selected Academic Presentations

- Number theory program at the Mittag-Leffler Institute, Djursholm, Sweden, March 1, 2024.
- Automorphic Forms and L-functions of Higher Rank Conference, London, UK, September 15, 2023.
- Nordic Congress of Mathematicians, Aalborg, Denmark, July 6, 2023.
- Finnish Mathematical Days 2020, Oulu, Finland, January 3, 2020.
- University of Oxford, Oxford, UK, April 30, 2019.
- London Number Theory Seminar, King's College London, UK, April 24, 2019.
- KTH Number Theory Seminar, Stockholm, Sweden, April 26, 2017.
- University of Copenhagen Number Theory Seminar, Copenhagen, Denmark, October 14, 2016.

Selected Research Visits

- February-March 2024: Visit to Mittag-Leffler Institute, Djursholm, Sweden (2 weeks).
- April-May 2019: Visit to University of Oxford, UK (1 week).
- April 2019: Visit to Queen Mary University of London, UK (1 week).
- February-April 2017: Visiting graduate student at Kungliga Tekniska Högskolan (KTH), Stockholm, Sweden (3 months).
- October 2016: Visit to University of Copenhagen, Denmark (1 week).

Language Skills
- Finnish (native), English, German, Swedish.