

# Prof. Dr. Julie Rowlett

## Curriculum Vitae



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<https://orcid.org/0000-0002-5724-3252>  
US citizen, Swedish permanent resident  
published as Julie (Marie) Rowlett, 罗茱莉

## RESEARCH

### Geometric analysis and its applications

Interests include geometric, functional, and microlocal analysis; differential geometry; complex analysis and geometry; spectral theory; mathematical physics; dynamical systems; game theory; and interdisciplinary collaboration.

## WORK EXPERIENCE

2022–	<b>Professor</b> , Chalmers University
2020–	<b>Program director</b> , Chalmers University
2016–2022	<b>Associate Professor</b> , Chalmers University
2016–2019	<b>Master's Program Director</b> , Chalmers University
2015–2016	<b>Senior lecturer</b> , Chalmers University
2014–2015	<b>Professor (W2)</b> , Technische Hochschule Ingolstadt
2013–2014	<b>Docent</b> , Leibniz Universität Hannover
2012–2013	<b>Substitute Professor (W3)</b> , Georg-August Universität Göttingen
2011–2012	<b>Researcher</b> , Max Planck Institute of Mathematics, Bonn
2009–2011	<b>Researcher &amp; teaching assistant</b> , Hausdorff Center for Mathematics & Rheinische Friedrich Wilhelms Universität Bonn
2007–2009	<b>Visiting assistant professor</b> , University of California Santa Barbara
2006	<b>Researcher and teaching assistant</b> , Centre de Recherches Mathématiques & McGill University
2006 & 2007	<b>Teacher</b> , Stanford University Education Program for Gifted Youth

## PEER-REVIEWED PUBLICATIONS

J. Gullholm, J. Klünder, **J. Rowlett**, & J. Stålberg, (2023). Diversity is Key: Fantasy football dream teams under budget constraints, *Front. Complex Systems*, vol. 3, (2023).

C. Aldana, K. Kirsten & **J. Rowlett** (2020). Polyakov formulas for conical singularities in two dimensions, accepted to appear in *Annales Mathématiques de Québec*.

E. Dryden, C. Gordon, J. Moreno, **J. Rowlett**, & C. Villegas Blas, (2025). The Steklov spectrum of convex polygonal domains I: spectral finiteness, *J. Geom. Anal.* vol. 35, no. 91.

M. Nурсуланов, **J. Rowlett** & D. Sher (December 27, 2024). The heat kernel on curvilinear polygonal domains in surfaces, *Annales Mathématiques de Québec*.

K. Fedosova, **J. Rowlett** & G. Zhang, (2024). Casimir energy of hyperbolic orbifolds with conical singularities, *J. Math. Physics*, vol. 65, no. 10.

N. Charalambous & **J. Rowlett**, (2024). The Laplace spectrum on conformally compact manifolds, *Trans. Amer. Math. Soc.* 377, 3373–3395.

K. Fedosova, A. Pohl, & **J. Rowlett** (2023). Fourier expansions of vector-valued automorphic functions with non-unitary twists, *Comm. in Number Theory and Physics*, vol. 17, no. 1, 173–248.

## EDUCATION

2020	<b>Diploma of Higher Education</b> <i>Chalmers</i>
2013	<b>Habilitation</b> Mathematics <i>Georg-August Universität Göttingen</i>
2006	<b>Doctor of Philosophy</b> Mathematics <i>Stanford University</i>
2001	<b>Bachelor of Science</b> CUM LAUDE AND WITH HONORS, RANKED #1 IN MAJOR Pure Mathematics <i>University of Washington</i>

## AWARDS

2024	<b>Pedagogical prize</b> <i>Chalmers University</i>
2023	<b>#addher Superstar Award Göteborg</b> <i>Sogeti &amp; Capgemini</i>
2021	<b>WISE Equality Award</b> <i>Chalmers University &amp; MedTech West</i>
2018	<b>Golden Apple Teaching Award</b> <i>Chalmers University</i>
2016	<b>Halmos Ford Expository Prize</b> <i>Mathematical Association of America</i>
2008	<b>Mochizuki Memorial Fund for teaching</b> <i>University of California Santa Barbara</i>
2007	<b>Pi Beta Phi sorority teaching award</b> <i>University of California Santa Barbara</i>
2001	<b>Outstanding Senior Award</b> <i>University of Washington</i>

## INVITED RESEARCH VISITS

2019 & 2008	<b>Research Member</b> <i>Mathematical Sciences Research Institute</i>
2016 & 2009	<b>Research in pairs</b> <i>Mathematisches Forschungsinstitut Oberwolfach</i>
2011	<b>Bonn-Kyoto Cooperation Program</b> <i>Kyoto University</i>

E. Nilsson, **J. Rowlett**, & F. Rydell (2023). The isospectral problem for flat tori from three perspectives, *Bulletin of the AMS*, vol. 60, no. 1, 39–83.

**J. Rowlett**, C.J. Karlsson, & M. Nursultanov (2022). Diversity strengthens competing teams, *Royal Society Open Science*, 9, 211916.

L. Bandara, M. Nursultanov & **J. Rowlett** (2021). Eigenvalue asymptotics for weighted Laplace equations on rough Riemannian manifolds with boundary. *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)*, vol. 22, issue 4, 1843–1878.

S. Menden-Deuer, **J. Rowlett**, M. Nursultanov, S. Collins, T. Rynearson (2021). Biodiversity of marine microbes is safeguarded by phenotypic heterogeneity in ecological traits. *PLoS ONE* 16(8):e0254799.

**J. Rowlett**, M. Blom, H. Nordell, O. Thim & J. Vahnberg. (2021). Crystallographic groups, strictly tessellating polytopes, and analytic eigenfunctions. *American Math. Monthly*, vol. 128, issue 5, 387–406.

H. Hezari, Z. Lu & **J. Rowlett** (2021). The Dirichlet isospectral problem for trapezoids. *J. Math. Phys.* vol. 62, no. 5.

C.J. Karlsson & **J. Rowlett** (2020). Decisions and disease: a mechanism for the evolution of cooperation. *Scientific Reports*, 10, article # 13113.

K. Fedosova, **J. Rowlett**, & G. Zhang. (2020). Second variation of Selberg zeta functions and curvature asymptotics. *Ann. Glob. Anal. Geom.* 57(1), 23–60.

N. Charalambous & **J. Rowlett** (2019). The heat trace for the drifting Laplacian and Schrödinger operators on manifolds. *Asian J. Math.* vol. 23, no. 4, 539–560.

Z. Lu & **J. Rowlett** (2019). 武侠和数学 (Martial arts and mathematics). 数学文化 (Mathematical Culture) 10, 104–107 (in Chinese).

M. Nursultanov, **J. Rowlett** & D. Sher (2019). How to hear the corners of a drum 2017 MATRIX annals, 243–278, MATRIX Book Ser. 2, Springer, Cham.

S. Menden-Deuer & **J. Rowlett** (2019). The theory of games and microbe ecology. *Theor. Ecology*, vol. 12, no. 1, 1–15.

C. Aldana & **J. Rowlett** (2018). A Polyakov formula for sectors. *J. Geom. Anal.* 28, no. 2, 1773–1839. (2019) Erratum.

H. Hezari, Z. Lu & **J. Rowlett** (2017). The Neumann isospectral problem for trapezoids. *Ann. Henri Poincaré* 18, no. 12, 3759–3792.

Z. Lu & **J. Rowlett** (2016). One can hear the corners of a drum. *Bull. London Math. Soc.* 48, no. 1, 85–93.

Z. Lu & **J. Rowlett** (2015). The sound of symmetry. *Amer. Math. Monthly*, 122, no. 9, 815–835. Awarded Halmos-Ford prize.

N. Charalambous, Z. Lu & **J. Rowlett** (2015). Eigenvalue estimates on Bakry-Émery Manifolds. Springer Proc. in Math. International Workshop on Elliptic and Parabolic Equations, Hannover, Germany, 10-12 September 2013 (2190-5614). vol. 119, 45–61.

R. Mazzeo & **J. Rowlett** (2015). A heat trace anomaly on polygons. *Mathematical Proceedings of the Cambridge Philosophical Society*, vol. 159, no. 02, 303–319.

K. Bever & **J. Rowlett** (2015). Love games: a game theory approach to compatibility. *J. Humanistic Math.* vol. 5, no. 1, 82–104.

**J. Rowlett**, P. Suarez-Serrato & S. Tapie (2015). Dynamics and zeta functions on conformally compact manifolds. *Trans. Amer. Math. Soc.* 367, 2459–2486.

## FELLOWSHIPS

- 2005 **Mary V. Sunseri Walker Beach fellowship**  
*Stanford University*
- 2001 **Royden fellowship**  
*Stanford University*
- 1996 **President's scholar**  
*University of Washington*

## GRANTS

- 2018, 2022–2024 **Chalmers & GU innovation offices**  
Approximately 1 000 000 SEK
- 2018–2022 **Swedish research council (VR)**  
3 375 000 SEK for grant # 2018-03873
- 2019 **NSF & MSRI**  
\$15 000 for microlocal analysis semester
- 2009 **AWM & NSF** mentoring travel grant
- 2008 **MAA** \$ 5000 for the Hypatian seminar
- 2008 **UCSB** non-senate faculty travel grant

## TEACHING

- 2015–present *Chalmers University*  
Fourier analysis, calculus, fractals, spectral theory of the Laplacian, the ubiquitous heat kernel.
- 2014–2015 *Technische Hochschule Ingolstadt*  
Mathematics for computer scientists, mathematics for User Experience Design, systems of differential equations.
- 2013–2014 *Leibniz Universität Hannover*  
Functional analysis, mathematics for physicists, seminar pearls of mathematics, dynamical measure theory.
- 2012–2013 *Georg-August Universität Göttingen*  
Functional analysis, mathematics for biologists and geologists, seminars pearls of mathematics & the mathematics of heat and waves.
- 2007–2009 *University of California Santa Barbara*  
Calculus, honors seminar, transition to higher math, introduction to analysis, real analysis.
- 2006–2007 *Stanford University*  
Linear algebra & multivariable calculus, number theory, mathematical Olympiad.

## BACHELOR SUPERVISION

- 2024 *Chalmers*  
Madicken Astorsdotter, Filippa Hultin, William Karlsson
- 2019 *Chalmers*  
Max Blom, Henrik Nordell, Oliver Thim, Jack Vahnberg
- 2018 *Chalmers*  
Johan Friemann, Artur Karlsson, Simon Larsson, Albin Skilje
- 2014 *Universität Hannover*

- Z. Lu & **J. Rowlett** (2014). *The fundamental gap and one-dimensional collapse.* Contemporary Mathematics, vol. 630, Amer. Math. Soc., Providence, RI, 223–246.
- J. Rowlett** (2014). *The level sets of typical games.* Notices of the A. M. S. 61, no. 8, 840–847.
- S. Menden-Deuer & **J. Rowlett** (2014). *Many ways to stay in the game: Individual variability maintains high biodiversity in planktonic microorganisms.* J. R. Soc. Interface, vol. 11, issue 95.
- B. Birnir & **J. Rowlett** (2013). *Mathematical models for erosion and the optimal transportation of sediment.* Int. J. of Nonlinear Sciences and Num. Sim. vol. 14, no. 6, 323–337.
- J. Rowlett** (2013). *Blast into Math! A fun and rigorous introduction to pure mathematics.* bookboon.com (Ventus Publishing ApS) ISBN 978-87-403-0330-8.
- Z. Lu & **J. Rowlett** (2013). *The fundamental gap of simplices.* Comm. Math. Phys. 319, no. 1, III–145.
- Z. Lu & **J. Rowlett** (2012). *Eigenvalues of collapsing domains and drift Laplacians.* Math. Res. Lett. vol. 19, no. 3, 627–648.
- Z. Lu & **J. Rowlett** (2012). *On the discrete spectrum of quantum layers.* J. Math. Phys. 53, no. 7, 073519, 22 pages.
- J. Rowlett** (2010). *On the spectral theory and dynamics of asymptotically hyperbolic manifolds.* Ann. de l’Institut Fourier, vol. 60, no. 7, 2461–2492.
- T. Jeffres & **J. Rowlett** (2010). *Conformal deformations of conic metrics to constant scalar curvature.* Math. Res. Lett. 17, no. 3, 449–465.
- J. Rowlett** (2009). *Dynamics of asymptotically hyperbolic manifolds.* Pac. J. Math. 242, no. 2, 377–397. (2014) Erratum.
- J. Rowlett** (2008). *Spectral geometry and asymptotically conic convergence.* Comm. Anal. Geom. 16, no. 4, 735–798.
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- ## INVITED PUBLICATIONS & REPORTS
- J. Rowlett** (2021). *Donut choirs and Schiemann’s symphony.* Oberwolfach Report, no. 27, 33–36.
- J. Rowlett** (2020). *Mathematics Indicates That an HIV-Style Strategy Could Be Applied to Manage the Coronavirus.* Mathematics in the time of Corona, Mathematics Online First Collections, Springer.
- Z. Lu & **J. Rowlett** (2015). *Can one hear the corners of a drum? Well, yes!* Oxford University Press blog.
- J. Rowlett** (2013). *La géométrie de Bakry-Émery et l’écart fondamental.* Séminaire de Théorie Spectrale et Géométrie, vol. 28, (2009–2010), 147–157, (in French).
- J. Rowlett** (2012). *Zeta-regularized determinants of Laplacians on polygons.* Oberwolfach Report, no. 25, 36–38.
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- ## PRE-PRINTS UNDER REVIEW
- G. Mårdby, **J. Rowlett**, & F. Rydell, (2024). *Three’s company in six dimensions: irreducible, isospectral, non-isometric flat tori.*
- G. Mårdby & **J. Rowlett**, (2024). *Spectral invariants of integrable polygons.*
- G. Mårdby & **J. Rowlett**, (2024). *112 years of listening to Riemannian manifolds.*
- 
- Paul Bauer, Annalena Dierkes, Julia Kirsten, Nadja Klintworth, Maike Lügering, Lea Mitschker, Jacqueline-Mariska Raschczyk, Marisa Tiede, Michael Radke, Daniel Vogt
- 2013 *Universität Göttingen*  
Kerstin Bever
- 
- ## MASTERS SUPERVISION
- |                                   |                   |
|-----------------------------------|-------------------|
| 2023 CHALMERS                     | Gustav Mårdby     |
| 2022 UNIVERSITY OF GOTHENBURG     | Josef Gullholm    |
| 2022 CHALMERS                     | Jonathan Stålberg |
| 2021 CHALMERS                     | Max Blom          |
| 2020 UNIVERSITY OF GOTHENBURG     | Felix Rydell      |
| 2019 CHALMERS                     | Erik Nilsson      |
| 2015 LEIBNIZ UNIVERSITÄT HANNOVER | Jil Klünder       |
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- ## PHD SUPERVISION
- |                               |                    |
|-------------------------------|--------------------|
| PLANNED 2028 CHALMERS         | Gustav Mårdby      |
| 2024 CHALMERS                 | Carl-Joar Karlsson |
| 2019 UNIVERSITY OF GOTHENBURG | Medet Nursultanov  |
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- ## INVITED SEMINAR & COLLOQUIUM LECTURES
- |   |  |
|---|--|
| 21.10.2024 $\mathcal{E}$ 27.07.2020           | Spectral geometry in the clouds.   |
| 19.09.2024                                    | Mathematics seminar, KTH.  |
| 02.05.2024                                    | Mathematics seminar, Högskolan Borås.  |
| 02.11.2023                                    | PDE seminar, TU Delft.   |
| 01.10.2024, 09.08.2023 $\mathcal{E}$ 7.6.2016 | Rainwater (Analysis) seminar, University of Washington.  |
| 30.3.2023                                     | Geometry and topology seminar, Chuo University.  |
| 25.10.2022                                    | Colloquium, Universität Hannover.  |
| 23.08.2022                                    | Colloquium, Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, UNAM, Ciudad de México. |
| 07.06.2022                                    | Seminars on inverse problems, online.  |
| 04.05.2022 $\mathcal{E}$ 01.12.2021           | Analysis seminar, Stockholm University & KTH.  |
| 29.09.2021                                    | Colloquium, University of Helsinki.  |
| 16.12.2020                                    |  |

C.J. Karlsson, P. Gerlee, & **J. Rowlett**, (2024). An adaptive dynamics framework for microbial ecology and evolution.

C. Aldana, K. Kirsten & **J. Rowlett** (2023). The variation of Barnes and Bessel zeta functions.

## INVITED LECTURES AT CONFERENCES & WORKSHOPS

*2.9.2024–6.9.2024*

Analytic Torsion and Interactions, University of Münster.

*22.7.2024–26.7.2024*

LMS-Bath Spectral Theory Symposium.

*10.6.2024–14.6.2024*

Freixet 2024, Varbergs Kusthotell.

*13.5.2024–17.5.2024*

Analysis of geometric singularities, CRM.

*24.4.2023–28.4.2023*

A unified view of quasi-Einstein metrics, BIRS.

*20.3.2023–24.3.2023*

Women at the intersection of mathematics and theoretical physics meet in Okinawa, OIST.

*20.2.2023–24.2.2023, 21.2.2022–25.2.2022, 15.2.2021–19.2.2021*  $\mathcal{E}\mathcal{G}$

*4.3.2019–8.3.2019*

Microlocal and Global Analysis, Interactions with Geometry, Universität Potsdam.

*2.9.2022–5.9.2022*

Geometric applications of microlocal analysis 2022, Stanford University.

*20.7.2022–22.7.2022*

Workshop on Microlocal Analysis & PDEs, University College London.

*28.3.2022–1.4.2022*

Geometry and analysis on non-compact manifolds, CIRM, Luminy, France.

*12.7.2021–23.7.2021*

Mathematical Congress of the Americas, Spectral Geometry Session.

*7.6.2021–11.6.2021*

Analysis, Geometry and Topology of singular PDE, MFO.

*30.9.2019–4.10.2019*

Asymptotic Analysis and Spectral Theory, University Paris-Sud.

*29.8.2019–30.8.2019*

Connections for Women in Microlocal Analysis, MSRI.

*5.8.2019–9.8.2019*

7th Bremen Summer School and Symposium on Dynamical Systems.

*21.6.2019–24.6.2019*

St. Petersburg Conference in Spectral Theory, Euler Institute.

*15.4.2019–19.4.2019*

Probing the earth and the universe with microlocal analysis, Banff International Research Station.

*6.11.2018–9.11.2018*

Analysis-Applied Math-Physics seminar, Dalhousie University.

*15.01.2020*

PDE and differential geometry seminar, University of Washington.

*02–03.12.2019*

Colloquium and analysis seminar, University of Oregon.

*28.10.2019*

Spectral and scattering theory seminar, Purdue University.

*21.05.2019*

PDEs and applications seminar, Uppsala Universitet.

*03.05.2019*

Natural Sciences Seminar, New College Florida.

*26.10.2018*

Oberseminar Geometry, Topology & Analysis, Universität Köln.

*15.06.2018*

Colloquium, Fudan University.

*11.4.2017*

Analysis seminar, Cal State University Northridge.

*28.9.2016*

Analysis seminar, Linnéuniversitet, Växjö.

*11.12.2015*

Analysis seminar, University of Cyprus.

*6.5.2015*

Analysis seminar, University of Loughborough.

*14.7.2015*  $\mathcal{E}\mathcal{G}$  *5.12.2014*

Oberseminar Analysis, Universität Hannover.

*29.10.2014*

Colloquium, Universität Potsdam.

*6.3.2014*

Colloquium, Australian National University.

*24.2.2014*

Analysis Seminar, Australian National University.

*26.11.2012*

Oberseminar Analysis and Theoretical Physics, Universität Hannover.

*7.6.2016*  $\mathcal{E}\mathcal{G}$  *11.10.2012*  $\mathcal{E}\mathcal{G}$  *3.11.2010*

Differential geometry and analysis seminars, University of Washington.

*14.06.2012*

Mathematisches Kolloquium, Universität Mainz.

*30.04.2012*

Born-Hilbert-Seminar, Universität Göttingen.

*12.01.2012*

Oberseminar Analysis, Universität Oldenburg.

*26.07.2011*

Conference on Partial Differential Equations and Applications in Memory of Professor B.Yu. Sternin, RUDN University, Moscow.

17–21.9.2018

Geometric Analysis and Mathematical Physics, University of Oldenburg.

2–6.9.2018 4th

Croatian Conference on Geometry and Graphics, Vodnjan (Peroj), **plenary speaker**.

9–13.7.2018

AMSI Winter School, lecture series, University of Queensland.

11–13.6.2018

Joint International Meeting of the Chinese and American Mathematical Societies, Special Session, Shanghai, China.

7–11.5.2018

Interfaces between geometric analysis and mathematical physics, Mittag-Leffler Institute.

19–23.3.2018

AMSI-ANU Workshop on Microlocal Analysis and its Applications, Murramarang.

10.3.2018

Women and Mathematics: Differential Geometry, Istanbul Center for Mathematical Sciences.

23–27.10.2017

Elliptic PDE of second order: celebrating 40 years of Gilbarg and Trudinger's book, Matrix Research Institute, Australia.

11–15.9.2017

Mathematical methods in inverse scattering and spectral theory, University of Leeds.

7–9.4.2017

Geometry and analysis on manifolds, UCSB.

3–5.4.2017

Young Women in Geometry, Max Planck Institute for Mathematics, **plenary speaker**.

7–10.3.2017

International Conference on PDEs, Geometric Analysis and Functional Inequalities, University of Sydney, Australia.

9–13.1.2017

Youth geometric analysis, TSIMF, Sanya, China.

11–16.12.2016

Geometric and spectral methods in PDE, CMO-BIRS, Oaxaca, Mexico.

6–8.10.2016

Elmar Schrohe 60th Birthday Conference on Analysis, Hannover.

25–29.4.2016

Evolution equations on singular spaces, CIRM, Luminy, France.

29.6–3.7.2015

Shape optimization and spectral geometry, ICMS, Edinburgh.

9–12.9.2014

Summer school on spectral geometry, Universität Göttingen.

12–13.6.2014

Oberseminar Geometrie, Universität Jena.

02.12.2010

London Analysis Seminar, Kings College.

29.11.2010

Analysis Seminar, University of Bristol.

18.11.2010

Graduierten Kolloquium, Universität Göttingen.

12.12.2014 & 8.10.2010 & 9.02.2010

Seminaire de la géométrie, Université de Nantes, (in French).

1.05.2010

Seminaire de la géométrie, Université de Provence, (in French).

15–16.04.2010

Geometric analysis and optimal transport seminars, Princeton University.

18.03.2010

Max Planck Institut für Mathematik, Bonn.

25.02.2010

Spectral theory and geometry seminar, Institut Fourier

14.04.2015 & 12.01.2010 & 4.03.2008

Geometry seminar, U.C. Irvine.

13.12.2011, 7.12.2010, 9.11.2009, 15–16.08.2007

Oberseminar Globale Analysis, Universität Bonn.

24.04.2009

Geometry seminar, U.C. San Diego.

5.01.2009

Dynamics seminar, University of Chicago.

19.09.2008

Postdoctoral seminar, MSRI.

29.04.2008

Geometry seminar, Duke University.

30.II.2007

Geometry seminar, California Institute of Technology.

19.10.2006

Geometry & Analysis seminar, Columbia University.

18.10.2006

PDE & Analysis seminar, MIT.

## OUTREACH

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2024 GOTHENBURG SCIENCE FESTIVAL

Public lecture

2023 & 2022 ALMEDALSVECKA

moderated panel

2023 PI DAY

Public lecture

and interview for Swedish National TV

2022 SCIENTIFIC AMERICAN

Interview

2021 SONJA KOVALEVSKY DAYS

Public lecture

PDE Days, Universität Köln.

24–28.3.2014, 25–29.3.2013, 12–16.03.2012, 07–11.03.2011

Geometric and singular analysis, Universität Potsdam.

10.9–12.9.2013

Elliptic and Parabolic PDEs Workshop, Universität Hannover.

8.2–10.2.2013

Texas Geometry and Topology Conference.

7.5–11.5.2012, 27.06–03.07.2010, and 19–26.08.2007

Analysis and geometric singularities, MFO.

18–19.2.2011

Geometry Workshop, University of Tsukuba, Japan.

9–13.8.2010

Topics in spectral and scattering theory, Penn. State University.

8–12.3.2010

Operators on singular spaces, Universität Potsdam.

15.1.2010 and 8.1.2008

Joint Mathematics Meetings Special Session.

23–26.10.2009

Microlocal analysis and spectral theory on singular spaces, Penn. State Univ.

1–5.6.2009

Spectral theory and geometry, Institut Fourier, Grenoble.

## LANGUAGE SKILLS

NATIVE SPEAKER English

FLUENT French, German, Swedish

INTERMEDIATE 汉语

## REVIEWER

Scientific Reports, Journal of Differential Geometry, Journal of Mathematical Analysis and Applications, Transactions of the AMS, Proceedings of the LMS, Australian Math. Society, Acta Mathematica, Communications in Contemporary Mathematics, Journal of Geometric Analysis, Mathematische Nachrichten, Journal of Public Health Policy, Journal of Spectral Theory, American Mathematical Monthly, Bulletin of the Korean Math Society, Advances in Mathematics.

2021 LE MONDE

Article

2019 MITTAG-LEFFLER INSTITUTE  
development of school math curriculum.

Kleindagarna

2018 UNIVERSITY OF QUEENSLAND

Public lecture

2012 UNIVERSITÄT GÖTTINGEN  
public lecture and music performance.

Night of Science  
Kinder-Uni  
Schülerwoche

## COMMISSIONS OF TRUST

2017– ... ROYAL ACADEMY OF SCIENCE

Swedish National Committee for Math.

2023 LUND UNIVERSITY

PhD Committee Samuele Sottile.

2023 UPPSALA UNIVERSITY

PhD Committee Aksel Bergfeldt.

2020 UNIVERSITÄT OLDENBURG

PhD Committee Mohammad Talebi.

2019 KUNGLIGA TEKNISKA HÖGSKOLA

PhD Committee Simon Larson.

2019 MSRI

Graduate student seminar organizer.

2017 HUMBOLDT UNIVERSITY BERLIN

PhD Committee Asylia Suleymanova.

2015 LEIBNIZ UNIVERSITÄT HANNOVER

PhD Committee Karsten Bohlen.

2014 UNIVERSITÄT POTSDAM

Co-organizer Geometric & singular analysis workshop.