CV AND PUBLICATIONS

H. HEDENMALM

CURRICULUM VITÆ   **Håkan Hedenmalm, 610825-6279**

Birthdate
August 25, 1961 (in Karlstad, Sweden).

Education
BSc, Uppsala University, 1980
PhD, Uppsala University, 1985

Employment
1980–1985, PhD student, Uppsala Universitet
1985–1987 Postdoctoral fellowship from NFR (VR): SUNY Albany, UW Seattle, UM Ann Arbor, UC Berkeley.
1987–1988 Assistant Professor, MSU East Lansing
1988–1991 Research assistant, Uppsala Universitet
1991–1992 University lecturer at KTH, Stockholm
1992–1996 University lecturer at Uppsala University
1996–2002 Professor at Lund University
2002–2025 Professor at KTH Royal Institute of Technology

Prizes and awards
First prize in the team contest of "Svenska Dagbladets och Svenska Matematikersamfundets matematik-tävling 1977" ("Swedish Mathematical Olympiad").
First prize at the Science Fair "Unga Forskare" at Tekniska Museet in Stockholm, 1978.
First prize in Matematics at the "International Science and Engineering Fair (ISEF) in Orange County, California, 1978".
http://en.wikipedia.org/wiki/Intel_International_Science_and_Engineering_Fair
A fellowship from the Sweden-America Foundation, 1985.
The Wallenberg Prize from the Swedish Mathematical Society, 1992.
The Benzelius prize 1995 from the KVS, the Royal Science Society (Sweden).
The Göran Gustafsson (KVA) prize for 2000.
The Eva and Lars Gårding prize (KFS) for 2015.

Selected invited talks
Nordic Congress of Mathematicians, Lahti, 1996.
2ECM, Budapest, 1996.
Abel Bicentennial, Oslo, 2002.
XIX Rolf Nevanlinna Colloquium. Jyväskylä, 2003.
Lars Ahlfors Centennial Celebration. Helsinki, 2007.
Conformal maps from probability to physics. Ascona, 2010.
IWOTA, Seville, 2011.
Nordic Congress of Mathematicians, Lund, 2013, plenary.
Everything is complex – a complex analysis conference. Saas-Fee, 2016.
7ECM, Berlin, 2016.
Harmonic and complex analysis conference in honor of Alexander Volberg. Bedlewo, 2016.
ISAAC, Aveiro, 2019, plenary.

MIO Oberwolfach, 2023: Group actions and harmonic analysis in number theory.

Editorial work
2005-. Bulletin des Sciences Mathématiques.
2011-2022. Analysis and Mathematical Physics.
2012-2019. Complex Variables and Elliptic Equations.
2019-2024. Journal of Fourier Analysis and Applications.

Research visits (longer)
University of Karlsruhe (1985). SUNY Albany (1985-86, 1992, 1995). University of Washington (1986). University of Michigan (1986-87, 1998). UC Berkeley (1987). MSU East Lansing (1987-88). Steklov Institute, SPb (1990, 1993, 1995, 2001, 2012). Technion, Israel (1991). CRM Barcelona (1993), University of Bordeaux (1994, 1999). MSRI Berkeley (1995). UT Knoxville (1996). ESI Vienna (1999, 2005). Mittag-Leffler Institute (1999, 2000, 2011). CalTech (2004, 2019). IPAM, Los Angeles (2004). University of Seville (2008, 2011). University of Provence (2011). Abel Symposium, Oslo (2012). Centre for Advanced Study, Oslo (2013). Simons Center, Stony Brook (2013). St-Petersburg State University (2021), University of Reading (2022).

Citation record of publications
Total of approximately 90 publications. Cited approximately 5100 times, H-index 32 (Google Scholar). Mathscinet citation count: 2342.
Top cited mathematical publications:
    See http://scholar.google.se/citations?hl=sv&user=Y8gZKo4AAAAJ

Research council related
Elector from Lund University at NFR (VR), 1998.
OAOT panel member, NSF, Washington, DC (2002).
Academy of Finland, panel member (2009, 2012).
Research Council of Norway, panel member (2010-2012, 2017-2020).
Research Council of Norway, evaluation committee for research (2024).

Memberships
1986-. The Sweden-America Foundation.
1986-. The Swedish Mathematical Society.
1998-. KFS, the Royal Physiographical Society, Sweden.
2018-. DKNVS, the Royal Norwegian Society of Sciences and Letters, Norway.

Grants (k=1000)
1985-87 NFR (VR) postdoctoral fellowship.
1993-96 NFR grant (approx EUR 85k/yr)
1996 INTAS OPEN-96-858. Co-applicant.
1997-2000 NFR grant (approx EUR 85k/yr)
2000 Göran Gustafsson grant (KVA). Approx EUR 400k.
2000 EEC training network HPRN-CT-2000-00116. Co-applicant under Jean Esterle. Total grant EUR 3500k.
2000-2003 VR grant (approx EUR 85k/yr)
2003-2006 VR grant (approx EUR 85k/yr)
2005 K A Wallenberg grant. Coapplicant under Anders Björner. Total approx EUR 3000k.
2006-2009 VR grant (approx EUR 85k/yr)
2009-2012 VR grant (approx EUR 85k/yr)
2012-2016 VR grant (approx EUR 85k/yr)
2015 KAW grant for visiting scholar. Approx EUR 150k.
2016-2020 VR grant (approx EUR 85k/yr)
2019 KAW grant for postdoctoral scholar (approx EUR150k)
2020 KAW grant for visiting professors (Saksman, Wiegmann)

2020-2024 VR grant (approx EUR 85k/yr)
2020 Megagrant (Russian Federation). Approx EUR 1000k.
2023 Verg foundation grant for postdoctoral scholar (approx EUR 200k)
2024 Megagrant (Russian Federation). Approx EUR 3000k.

Supervised PhD students
Jonas Hansbo. PhLic, Uppsala 1994. Works in Software/Finance/entrepreneurial activity.
Ali Abkar. PhD, Lund 2000. Works at Imam Khomeini International University in Iran.
Stefan Jakobsson. PhD, Lund 2000. Works in Applied Mathematics (Fraunhofer).
Anders Dahlner. PhLic, Lund 2001. Works in Software/Finance.
Yolanda Perdomo-Gallípoli. PhD, Lund 2005. Works in Software/Programming.
Alan Sola. PhD KTH Stockholm 2010. Lecturer at SU.
Antti Haimi. PhD KTH Stockholm 2013. Åbo Akademi, Turku, Finland.
Gustav Behm. PhLic KTH Stockholm 2014. Works in Programming/Engineering.
Aron Wennman. PhD KTH Stockholm 2018. Associate Professor, KU Leuven.
Hampus Nyberg. Ongoing PhD student, 2023-.

Supervised postdoctoral scholars
Natalia Abuzyarova (2003-2004), Anders Olofsson (2003-2005), Anton Baranov (2005-2006), Yacin Ameur (2007-2009), Brett Wick (2007), Dani Blasi-Babot (2008), Nir Lev (2008), Ioannis Parissis (2008-2009), Frédéric Gaunard (2012-2013), Antti Perälä (2013), Guido Mazzuca (2021-2023), Ramlal Debnath (2024-).

Significant mentors
I was influenced significantly by Boris Korenblum (SUNY Albany) and by Nikolai Makarov (CalTech).

1. Bibliometric information

Total of approximately 90 publications, most of which in peer-reviewed journals. Cited approximately 5100 times, H-index 32, total 10-index 71 (Google Scholar). Mathscinet citation count: 2342. WoS count approximately 1600.

2. Selection of research outputs

24.3. **H. Hedenmalm**, A. Wennman, *Berezin density and planar orthogonal polynomials*. Trans. Amer. Math. Soc. **377** (2024), 4825-4863. Citations: GS=4

24.2. **H. Hedenmalm**, A. Wennman, *Riemann-Hilbert hierarchies for hard edge planar orthogonal polynomials*. Amer. J. Math. **146** (2024), 371-403. Citations: GS=10

24.1. **H. Hedenmalm**, *Soft Riemann-Hilbert problems and planar orthogonal polynomials*. Comm. Pure Appl. Math. **77** (2024), 2413-2451. Citations: GS=12

21.2. **H. Hedenmalm**, A. Wennman, *Planar orthogonal polynomials and boundary universality in the random normal matrix model*. Acta Math. **227** (2021), 309-406. Citations: GS=77

21.1. A. Bakan, **H. Hedenmalm**, A. Montes-Rodriguez, D. Radchenko, M. Viazovska, *Fourier uniqueness in even dimensions*. Proc. Natl. Acad. Sci. USA **118** (15) (2021), e2023227118. Citations: GS=16

20.4. **H. Hedenmalm**, S. Shimorin, *Gaussian analytic functions and operator symbols of Dirichlet type*. Adv. Math. **372** (2020), 107301, 38 pp. Citations: GS=1

20.3. **H. Hedenmalm**, A. Wennman, *Off-spectral analysis of Bergman kernels*. Comm. Math. Phys. **373** (2020), 1049-1083. Citations: GS=22

20.2. **H. Hedenmalm**, A. Montes-Rodríguez, *The Klein-Gordon equation, the Hilbert transform, and dynamics of Gauss-type maps*. J. Eur. Math. Soc. (JEMS) **22** (2020), 1703-1757. Citations: GS=28

20.1. **H. Hedenmalm**, *Bloch functions, asymptotic variance, and geometric zero packing*. Amer. J. Math. **142** (2020), 267-321. Citations: GS=17

13.1. **H. Hedenmalm**, N. Makarov, *Coulomb gas ensembles and Laplacian growth*. Proc. London Math. Soc. **106** (2013), 859-907. Citations: GS=153

11.1. **H. Hedenmalm**, A. Montes-Rodríguez, *Heisenberg uniqueness pairs and the Klein-Gordon equation*. Ann. of Math. **173** (2011), 1507-1527. Citations: GS=74

3. Relevant research outputs 2016-2024: peer reviewed articles

24.3 **H. Hedenmalm**, A. Wennman, *Berezin density and planar orthogonal polynomials*. Trans. Amer. Math. Soc. **377** (2024), 4825-4863. Citations: GS=4

24.2. **H. Hedenmalm**, A. Wennman, *Riemann-Hilbert hierarchies for hard edge planar orthogonal polynomials*. Amer. J. Math. **146** (2024), 371-403. Citations: GS=10

24.1. **H. Hedenmalm**, *Soft Riemann-Hilbert problems and planar orthogonal polynomials*. Comm. Pure Appl. Math. **77** (2024), 2413-2451. Citations: GS=12

22.1. A. Aleman, A. Baranov, Y. Belov, **H. Hedenmalm**, *Backward shift and nearly invariant subspaces of Fock-type spaces*. Int. Math. Res. Not. IMRN 2022, no. 10, 7390-7419. Citations: GS=12

21.3. **H. Hedenmalm**, A. Montes-Rodríguez, *The Klein-Gordon equation, the Hilbert transform, and dynamics of Gauss-type maps: H^∞ approximation.* J. Anal. Math. **144** (2021), 119-190. Citations: GS=22

21.2. **H. Hedenmalm**, A. Wennman, *Planar orthogonal polynomials and boundary universality in the random normal matrix model.* Acta Math. **227** (2021), 309-406. Citations: GS=77

21.1. A. Bakan, **H. Hedenmalm**, A. Montes-Rodríguez, D. Radchenko, M. Viazovska, *Fourier uniqueness in even dimensions*. Proc. Natl. Acad. Sci. USA **118** (15) (2021), e2023227118. Citations: GS=16

20.5. A. Bakan, **H. Hedenmalm**, *Exponential integral representation of theta functions.* Comput. Methods Funct. Theory **20** (2020), no. 3-4, 591-621. Citations: GS=1

20.4. **H. Hedenmalm**, S. Shimorin, *Gaussian analytic functions and operator symbols of Dirichlet type.* Adv. Math. **372** (2020), 107301, 38 pp. Citations: GS=1

20.3. **H. Hedenmalm**, A. Wennman, *Off-spectral analysis of Bergman kernels.* Comm. Math. Phys. **373** (2020), 1049-1083. Citations: GS=22

20.2. **H. Hedenmalm**, A. Montes-Rodríguez, *The Klein-Gordon equation, the Hilbert transform, and dynamics of Gauss-type maps.* J. Eur. Math. Soc. (JEMS) **22** (2020), 1703-1757. Citations: GS=28

20.1. **H. Hedenmalm**, *Bloch functions, asymptotic variance, and geometric zero packing.* Amer. J. Math. **142** (2020), 267-321. Citations: GS=17

18.2. **H. Hedenmalm**, A. Wennman, *A critical topology for L^p-Carleman classes with $0 < p < 1$.* Math. Ann. **371** (2018), 1803-1844. Citations: GS=1

18.1. **H. Hedenmalm**, D. Stolyarov, V. Vasyunin, P. Zatitskiy, *Sharpening Hölder's inequality.* J. Funct. Anal. **275** (2018), 1280-1319. Citations: GS=4

17.1. **H. Hedenmalm**, *Bloch functions and asymptotic tail variance.* Adv. Math. **313** (2017), 947-990. Citations: GS=13

4. Relevant research outputs 2016-2024: not yet peer reviewed articles

25.3 U. Etayo, **H. Hedenmalm**, J. Ortega-Cerdà, *Bombieri-type inequalities and equidistribution of points*. Submitted to: Amer. J. Math.

25.2. **H. Hedenmalm**, A. Wennman, *A global expansion of the polynomial Bergman density*. Preliminary manuscript.

25.1. A. Bakan, **H. Hedenmalm**, A. Montes-Rodríguez, *Hyperbolic Fourier series and the Klein-Gordon equation*. Submitted to: Forum Math. Pi. Citations: GS=8