

CURRICULUM VITAE

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DATE of BIRTH: December 14, 1953

EDUCATION

FD (Ph.D.) 1981, Mathematics, Lund University.

Thesis advisor: Lars Hörmander

Thesis title: *On the propagation of singularities for pseudo-differential operators of Principal Type*

FK (B.S.) 1976, Lund University.

PROFESSIONAL EXPERIENCE

2006– Full Professor, Lund University.

1988–2006 Associate Professor (Universitetslektor), Lund University.

1988 Habilitation (Docent), Lund University.

1983–1988 Assistant Professor (Forskarassistent), Lund University.

1981–1983 C.L.E. Moore Instructor, MIT, Cambridge, Massachusetts.

1976–1981 Teaching Assistant and Student Counselor, Lund University.

GRANTS and PRIZES

2010–2012 VR (Swedish Research Council) grant 2009-5764.

2007–2009 VR grant 2006-2629.

2005 Clay Research Award from the Clay Mathematics Institute.

2004–2006 VR research grant 2003-5362.

2003 Gårding Prize from the Royal Fysiographic Society in Lund.

2001–2003 VR grant 2000-5089.

1998–2000 NFR (Swedish Science Research Council) grant 9114-304.

1992–1997 Research grant from the Faculty of Science, Lund University.

1988–1991 NFR grant 9114-300.

1984–1987 Research grant from the Faculty of Science, Lund University.

1983 Strömer–Ferrner Award from the Royal Swedish Academy of Sciences.

1982–1983 NSF grant MCS-8102373.

ADMINISTRATIVE EXPERIENCE

- 2010 Swedish delegate to the IMU General Assembly, Bangalore, India.
- 2010– Member of the Board of Institute Mittag-Leffler.
- 2009– Member of the Swedish National Committee for Mathematics.
- 2009 Elector of the Swedish Research Council (VR).
- 2008– Member of the Royal Swedish Academy of Sciences.
- 2007– Member of the Mathematics Committee, Swedish Research Council.
- 2007–2009 Chairman of the Swedish Mathematical Society.
- 2006 Swedish delegate to the IMU General Assembly, Santiago, Spain.
- 2006 Swedish delegate to the EMS Council, Torino, Italy.
- 2005–2007 Vice Chairman of the Swedish Mathematical Society.
- 2005–2007 Vice Chairman of the VR committee RFN.
- 2002–2007 Member of the ESF Networking Programme “SPECT”.
- 2002–2004 Member of Departmental Board, Department of Mathematics, Lund University.
- 2001–2003 Director of Studies (studierektor), Mathematics, Lund University.
- 2001– Chairman of the Lund Mathematical Society.
- 1999–2000 Member of Mathematics Committee, Swedish Nat. Sci. Res. Council (NFR).

SELECTED PUBLICATIONS

The solvability and subellipticity of systems of pseudodifferential operators, ”Advances in phase space analysis of partial differential equations”, Progr. Nonlinear Differential Equations Appl., 78, Birkhäuser Boston, Inc., Boston, MA, 2009, 73–94.

On the solvability of systems of pseudodifferential operators, arXiv:0801.4043. To appear in *Geometric Aspects of Analysis and Mechanics, A Conference in Honor of Hans Duistermaat*, Birkhäuser, Boston, Mass, USA.

The pseudospectrum of systems of semiclassical operators, Anal. PDE **1** (2008), 323–373.

On the solvability of pseudo-differential operators, Séminaire Equations aux Dérivées Partielles du Centre de Mathématiques de l’Ecole Polytechnique, 2005–2006.

The resolution of the Nirenberg–Treves conjecture, Ann. of Math. **163** (2006), 405–444.

The solvability of pseudo-differential operators, “Phase space analysis of partial differential equations”, Vol. I, Pubbl. Cent. Ric. Mat. Ennio Giorgi, Scuola Norm. Sup., Pisa, 2004, 175–200.

Pseudospectra of semi-classical (pseudo)differential operators, joint work with J. Sjöstrand and M. Zworski, Comm. Pure Appl. Math. 57 (2004), 384–415.

The question of solvability, ”Hyperbolic Problems and related Topics” (F. Colombini and T. Nishitani, eds.), International Press, Somerville, Mass, USA, 2003, 159–184.

A sufficient condition for solvability, Int. Math. Res. Not. 1999:12, 627–659.

Hypoellipticity for operators of infinitely degenerate Egorov type, joint work with Y. Morimoto and T. Morioka, Tsukuba J. Math. **23** (1999), 215–224.

Estimates and solvability, Arkiv för Matematik **37** (1999), 221–243.

A class of solvable operators, ”Geometrical Optics and Related Topics” (F. Colombini and N. Lerner, eds.), Birkhäuser, Boston, Mass, USA, 1997, 141–177.

The propagation of polarization for systems of transversal type, Arkiv för Matematik **33** (1995), 249–279.

Preparation theorems for matrix valued functions, Ann. Inst. Fourier (Grenoble) **43** (1993), 865–892.

On the propagation of singularities for pseudo-differential operators with characteristics of variable multiplicity, Comm. Partial Differential Equations, **17** (1992), 1709–1736.

The propagation of polarization in double refraction, Journal of Functional Analysis **104** (1992), 414–468.

The propagation of singularities for pseudo-differential operators with self-tangential characteristics, Arkiv för Matematik **27** (1989), 65–88.

On the propagation of polarization in conical refraction, Duke Mathematical Journal **57** (1988), 85–134.

The Weyl calculus with locally temperate metrics and weights, Arkiv för Matematik **24** (1986), 59–79.

On the propagation of polarization sets for systems of real principal type, Journal of Functional Analysis **46** (1982), 351–372.

On the propagation of singularities for pseudo-differential operators of principal type, Arkiv för matematik **20** (1982), 23–60.

SCIENTIFIC JOURNALS

Editor of Arkiv för Matematik.

Editor of the International Mathematics Research Notices.

Editorial Board Member of the Open Mathematics Journal.

Editorial Board Member of Annali dell’Università di Ferrara.

INVITED LECTURES and RESEARCH VISITS

”First Swedish-Catalan Mathematical Meeting”, Barcelona, Spain, September 2010.

”International Congress of Mathematicians ICM2010”, Hyderabad, India, August 2010.

”Selected Topics in Spectral Theory”, Erwin Schrödinger Institute, Vienna, Austria, July 2009.

”25th Nordic and 1st British-Nordic congress of Mathematicians”, Oslo, Norway, June 2009.

”Spectral Theory and Partial Differential Equations”, Copenhagen, Denmark, November 2008.

Visiting researcher at Mathematics Sciences Research Institute, Berkeley, California, USA, October 2008.

”5:th European Congress of Mathematics”, Amsterdam, The Netherlands, July 2008.

”Pseudo-differential Operators and Related Topics”, Växjö, Sweden, June 2008.

Visiting researcher at Bonn University, Bonn, Germany, May 2008.

”EMS Mathematical Weekend”, Copenhagen, Denmark, March 2008.

“Phase Space Analysis of PDE’s 2007”, Siena, Italy, October 2007.

“Solvability and Spectral Instability”, Clay Mathematics Institute, Cambridge, Massachusetts, USA, September 2007.

“Geometric Aspects of Analysis and Mechanics”, Utrecht, The Netherlands, August 2007.

Visiting researcher at Kyoto University, Kyoto, Japan, April 2007.

“Microlocal Analysis and Applications to PDE”, Centro De Giorgi, Pisa, Italy, November 2006.

“Regularity in Hyperbolic Problems”, Bertinoro, Italy, November 2006.

Visiting researcher at University of Washington, Stanford University and UCLA, USA, October 2006.

Visiting researcher at University of California, Berkeley, California, USA, April 2006.

“Linear and nonlinear waves”, Osaka, Japan, November 2005.

Visiting researcher at Ecole Polytechnique, Paris, France, October 2005.

“The Third French-Tunisian PDE Meeting”, Hammamet, Tunisia, September 2005.

“Harmonic analysis and partial differential equations”, Kiel, Germany, June 2005.

“Analyse Semi-Classique, Hypoellipticite & Mecanique Statistique”, Reims, France, June 2005.

“Phase Space Analysis and related topics”, Grado, Italy, September 2004.

“Degenerate PDEs and Singular Geometries”, Potsdam, Germany, August 2004:

Visiting researcher at the Trimester “Phase Space Analysis of Partial Differential Equations”, Centro De Giorgi, Pisa, Italy, April 2004.

“Phase Space Analysis of Partial Differential Equations”, Bertinoro, Italy, November 2003.

“Equations aux Dérivées Partielles”, Forges-les-Eaux, France, June 2003.

“Mathematical Semi-Classical Analysis” at Mathematics Sciences Research Institute, Berkeley, California, USA, May 2003.

Visiting researcher at the Mittag-Leffler Institute, Djursholm, Sweden, October 2002.

“Hyperbolic Problems and Related Topics”, Cortona, Italy, September 2002.

Visiting researcher at University of California, Berkeley, California, USA, March 2002.

The Tsukuba Symposium, Tsukuba, Japan, February 2002.

The First Joint AMS-Scandinavian International Mathematics Meeting, Odense, Denmark, June 2000.

“Partial Differential Equations and Related Topics”, University of Pisa, Italy, May 2000.

“International Conference on Analysis and Mathematical Physics in Honour of Lars Gårding on his 80th birthday”, University of Lund, Lund, Sweden, August 1999.

Visiting researcher at Kyoto University, Japan, November 1998.

“Microlocal Methods in Geometric Analysis”, Fields Institute, Toronto, Canada, October 1997.

“Geometrical Optics and Related Topics”, Cortona, Italy, September 1996.

“Equations aux Dérivées Partielles”, St. Jean de Monts, France, June 1996.