

# Curriculum Vitae

## Personal details

Lina Hedvig Monica von Sydow

Born: 25/1-67 in Uppsala, Sweden

Civil status: Married, 5 children born 1991, 1994, 1997, 2002, 2004.

## Academic degrees

- M.Sc. in Engineering Physics, Uppsala University, 1989.
- Ph.D in Numerical Analysis, Uppsala University, Department of Scientific Computing, May 1995.
- Appointed Docent, Uppsala University, Department of Information Technology, Division of Scientific Computing, June 2000.
- Appointed Excellent Teacher, Uppsala University, Department of Information Technology, Division of Scientific Computing, March 2013.

## Employments

- Graduate Student, Department of Scientific Computing, Uppsala University, Jul. 1989 - Jul. 1995.
- University Lecturer (temporary position), Department of Scientific Computing, Uppsala University, Jul. 1995 - Jun. 1996.
- Postdoc at Oxford University Computing Laboratory, Numerical Analysis, Jul. 1996 – Jun. 1997.
- Researcher (Forskarassistent), Department of Scientific Computing, Uppsala University, Jul. 1997 - Oct. 1997.
- University lecturer (permanent position), Department of Information Technology, Uppsala University, Oct. 1997 – Oct. 2019.
- Professor in Scientific Computing, Department of Information Technology, Uppsala University, Nov. 2019 – present.

## Parental leave

Between 911121 and 120331 I was on parental leave more than 4 years in total.

## Supervision of PhD students

- S. Sundberg, Lic Thesis: Semi-Toeplitz preconditioning for linearized boundary layer problems, Dept. of Information Technology, Uppsala Univ., Uppsala, Sweden, 2002, Main advisor.
- Jonas Persson, PhD Thesis: Accurate finite difference methods for option pricing, Dept of Information Technology, Uppsala Univ., Uppsala, Sweden, 2006, Main advisor.

- Ali Dorostkar, Lic Thesis: Developments in preconditioned iterative methods with application to glacial isostatic adjustment models, 2015, Co-advisor.
- Victor Shcherbakov, Lic Thesis: Radial basis function methods for pricing multi-asset options, 2016, Co-advisor.
- Josefin Ahlkrona, PhD Thesis: Computational Ice Sheet Dynamics: Error control and efficiency, Dept of Information Technology, Uppsala Univ., Uppsala, Sweden, 2016, Co-advisor.
- Ali Dorostkar, PhD Thesis: Analysis and Implementation of Preconditioners for Prestressed Elasticity Problems: Advances and Enhancements, 2017, Co-advisor.
- Victor Shcherbakov, PhD Thesis: Localised Radial Basis Function Methods for Partial Differential Equations, 2018, Co-advisor.
- Slobodan Milovanović, PhD Thesis: Radial Basis Function generated Finite Difference Methods for Pricing of Financial Derivatives, 2018, Main advisor.
- Cheng Gong, project: Frozen landscapes in transition: improving predictions of ice sheet stability in a warming world by numerical modelling, 2019, Main advisor.
- Igor Tominec, project: Numerical simulation methods for the human respiratory system, 2017-present. 2022, Co-advisor.

Local advisor for visiting PhD student Jamal Amani Rad from Shahid Beheshti University, Tehran, Iran, spring 2015. PhD Thesis: Meshless methods for option pricing in financial mathematics.

## Publications

- 34 original articles in refereed scientific journals.
- 6 original contributions to refereed conference proceedings.
- 1 book chapter.
- 1 editorial.

## Teaching

- Involved in teaching of ten different undergraduate courses at basic and advanced level since 1989.
- Involved in the development and teaching of PhD student courses within the National Graduate School in Scientific Computing, The 24<sup>th</sup> Jyväskylä Summer School and UU.
- Supervision of undergraduate students
  - o 11 MSc thesis projects,
  - o 7 Bachelor thesis projects,
  - o 8 projects in project course "Projects in Scientific Computing".
- Developed two advanced level courses in Computational Finance.

## Grants (selected)

- 5 research grants from TFR/VR as main applicant
- Junior Individual Grant from SSF as main applicant

- 2 research grants from FORMAS as co-applicant
- Pedagogical grant from NSHU as main applicant

### **Commissions of trust and other merits (selected)**

- Referee for a large number of journals, book projects, conferences and research councils.
- Member of “Komité for tungregneprogrammet III” 2004 in Norway.
- Chairman at 4 PhD thesis defences.
- Member of 19 grading committees at PhD thesis defences.
- Opponent at PhD thesis defence by Love Lindholm, PhD thesis: Numerical methods for the calibration problem in finance and mean field game equations, Department of Mathematics, KTH, 13 Oct 2017.
- Expert evaluator (sakkunnig) for:
  - a position as Associate Professor in Mathematics at Örebro University, 2015.
  - a position as Assistant Professor in Mathematics at Lund University, 2022.
  - a position as Associate Professor in Financial Mathematics at Linköping University, 2022.
  - a graduate center in Scientific Computing at Lund University, 2022.
- Editor of Special Issue: “Topics in Computational and Algorithmic Finance”, J. Comput. Sci., <https://www.sciencedirect.com/science/article/pii/S1877750317314138>, 2017.

### **Distinctions and Awards**

- Amelia Earhart Fellowship, 1990.
- Second Place Prize in Student Paper Competition at the Colorado Conference on Iterative Methods, 1994.
- One of four finalists for the Householder Award for best thesis in Numerical Linear Algebra, 1996.
- The article BENCHOP – The BENCHmarking project in Option Pricing, to which I am the first author, is the most read article in International Journal of Computational Finance, with more than 3800 views, <https://www.tandfonline.com/action/showMostReadArticles?journalCode=gcom20>

### **Administrative merits and leadership in academia**

- Deputy member of the board of the Department of Scientific Computing, Uppsala University, 1990.
- Member of the committee of docentship at the Faculty of Science and Engineering, Uppsala University, as graduate student.
- Member of the board of the Department of Scientific Computing, Uppsala University, 1994-1995.
- Associate Director for the Parallel and Scientific Computing Institute (PSCI), Uppsala University, 1998-2000.
- Member of the board of the Department of Information Technology, Uppsala University, 1999-2003.

- Coordinator of Center for women researchers in scientific computing, 2001-2002, <http://www.it.uu.se/research/qcentrum/>.
- Member of the committee of recruitment at the Department of Information Technology, Uppsala University, 2006-2008.
- Chairman of the board of equal opportunities at the Department of Information Technology, Uppsala University, approx. 2000.
- Member of the academic senate at Uppsala University, 2002-2005.
- Director of graduate studies, Department of Information Technology, Uppsala University, 2003.
- Member of the board of equal opportunities at the Department of Information Technology, Uppsala University, 2006-2008.
- Chairman of the board for educational programs in Computing and Electrical Engineering at the Faculty of Science and Technology, Uppsala University, 2007-2009.
- Member of the board of Engineering studies at the Faculty of Science and Technology, Uppsala University, 2007-2009.
- Member of the board of Centre for Gender research, Uppsala University, 2007-2009.
- Member of the board for high school pedagogy, Faculty of Science and Technology, Uppsala University, 2009.
- Chairman for team of teachers in Scientific Computing, Department of Information Technology, Uppsala University, 2010-2011.
- Dean of Education, Faculty of Science and Technology, Uppsala University, 2011.
- Member of the Faculty board, Faculty of Science and Technology, Uppsala University, 2011.
- Chairman for team of teachers in Advanced level courses in Scientific Computing, Department of Information Technology, Uppsala University, 2013-2015.
- Deputy head of division, Division of Scientific Computing, Department of Information Technology, Uppsala University, 2014-2015.
- Deputy member of steering group at Department of Information Technology, Uppsala University, 2014-2015.
- Member of nominating committee, Department of Information Technology, Uppsala University, 2014-2018.
- Member of steering group at Division of Scientific Computing, Department of Information Technology, Uppsala University, 2014-2018.
- Head of Division of Scientific Computing, Department of Information Technology, Uppsala University including budget responsibility approx. 38 MSEK annually, 2015-2018.
- Member of the Electoral Assembly for The Faculty of Science and Technology, Uppsala University, 2017-2020.
- Chairman of the election committee for the Electoral Assembly for The Faculty of Science and Technology, Uppsala University, 2017-2020.
- Member of the reference group for the reorganization of IT support within Uppsala University, 2018-2020.
- Head of Department of Information Technology including budget responsibility approx. 350 MSEK annually, 2018-2023.
- Member of the University Director's Council for Heads of Department, 2019-2023.
- Member of Uppsala University's Council for Internationalization, 2021-present.

- Leader of “Investigation of the information security work at Uppsala University”, 2022.
- Section Dean for the section of Mathematics and Computer Science, 2023-present.

### **Studies related to leadership and/or gender**

- Attended mentor programme for young female researchers, Faculty of Science and Technology, Uppsala University, 1998-2000.
- Course in gender for researchers at Uppsala University, 2004-2005.
- Leader programme for women, Uppsala University, 2008-2009.
- Mentor programme for women, Uppsala University, 2011-2013.
- Leader programme for women “Att leda som kvinna” by Barbro Dahlbom-Hall, 2013.
- Course for heads at universities “Baskurs för chefer” at Uppsala University, 2015-2016.
- Law in practice “Juridik i praktiken” at Uppsala University, 2017.
- Economy for leaders “Ekonomispelet för chefer och ledare” at Uppsala University, 2018.
- Labor law “Arbetsrätt” at Uppsala University, 2018.
- Leadership program for experienced managers within “Lärosäten Öst”, 2020-2021.