

# CURRICULUM VITÆ

APRIL 9, 2024

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## Languages

*French* : mother tongue  
*English* : fluent  
*German* : fluent  
*Swedish* : advanced  
*French sign language* : novice

## Education

*March 2014* : Docent, Umeå University, Sweden  
*June 2004* : PhD in Mathematics at the University of Geneva, Switzerland, entitled “Analysis and Numerical Treatment of Highly Oscillatory Differential Equations” (advisor Ernst Hairer)  
*May 2000* : Diploma in Mathematics at the University of Geneva, Switzerland (advisor Ernst Hairer)

## Employment

*04.2020–* : “Biträdande professor” (professor) at Chalmers University of Technology, Gothenburg, Sweden  
*09.2012– 09.2020* : “Universitetslektor” (associate professor) at Umeå University, Sweden  
*03.2012–09.2012* : “Wissenschaftlicher Angestellter” (research fellow) at the Karlsruhe Institute of Technology, Germany  
*09.2007–02.2012* : “Assistenzprofessor” (non-tenure-track assistant professor) at the University of Basel, Switzerland  
*2006–2007* : Postdoc at the NTNU, Trondheim, Norway (financed by the *Geometric Analysis in Lie Groups and Applications* project)  
*2005–2006* : Postdoc at the University of Tübingen, Germany (financed by the SFB 382 *Verfahren und Algorithmen zur Simulation physikalischer Prozesse auf Höchstleistungsrechnern*)  
*2004–2005* : Postdoc at the University of Tübingen, Germany (Fellowship financed by the Swiss National Science Foundation)  
*2000–2004* : Assistant at the University of Geneva, Switzerland  
*1999–2001* : Replacements in various colleges in Geneva, Switzerland

## Visiting position

11.2015–11.2016 : Guest professor for Stochastics at the University of Innsbruck, Austria

## Academic Interests

Numerical methods for ordinary and partial differential equations. Numerical methods for stochastic (partial) differential equations. Geometric numerical integration.

## Professional Skills

Programs in FORTRAN, C++, OPENGL and mathematical languages (MAPLE, MATLAB, MINITAB)

## Supervision of Bachelor students

- ◆ William Karlander, Georg Frantz Merila Kyhn, Erik Sahlin (Chalmers and GU, with A. Lang, 01.06.22): *Geometrisk numerisk integrering av differentialekvationer*
- ◆ Selma Moqvist, Simon Lindeberg Skoglund (Chalmers and GU, with A. Lang, 01.06.22): *Simulering av stokastiska fält på sfären*
- ◆ Christoffer Cronhamn, Kristoffer Westlund (Chalmers and GU, with A. Lang, 01.06.22): *Simulering av stokastiska fält på sfären*
- ◆ Tom Doran, Adam Ivehag, Ludvig Jakobsson, Joakim Quach (Chalmers and GU, with A. Lang, 03.06.21): *Numeriska simuleringar av stokastiska differentialekvationer*
- ◆ Kristofer Cronwald (Umeå University, 11.09.19): *An Introduction to Multilevel Monte Carlo with Applications to Options*
- ◆ Katharina Zirngast (University of Innsbruck, 03.04.17): *Klassische Numerische Methoden für Stochastische Differentialgleichungen*

## Supervision of Master students

- ◆ Karim Ramiyou Mache (AIMS Senegal, 05.02.20): *Geometric Numerical Integration and Optimization in Machine Learning*
- ◆ Krister Janzon (Umeå University, 24.08.18): *Monte Carlo Path Simulation and the Multilevel Monte Carlo Method*
- ◆ André Berglund (Umeå University, 02.05.17): *Numerical Simulations of Linear Stochastic Oscillators Driven by Wiener and Poisson Processes*
- ◆ Manuel Baumgartner (University of Basel, 02.08.11): *Charakterisierung symmetrischer exponentieller Runge–Kutta Verfahren*
- ◆ Annina Nef (University of Basel, 30.06.11): *Numerische Integratoren für stochastische Hamilton- und Poisson-Systeme*
- ◆ Magdalena Sigg (University of Basel, 19.01.09): *Hochoszillatorische Differentialgleichungen mit zeitabhängigen Frequenzen*
- ◆ Thomas Kozlik (University of Basel, 31.10.08): *Ein Vergleich des Yee Schemas mit Energieerhaltung bei  $x = 0$  mit dem lokalen Zeitschrittverfahren mit Mass-Lumping (with M. Grote)*

## Supervision of PhD students

- ◆ Johan Ulander (Chalmers & GU, 11.01.21–): *Ongoing*
- ◆ André Berg (Umeå University, 01.10.17 – 25.09.23): *Numerical analysis and simulation of stochastic partial differential equations with white noise dispersion*
- ◆ Rikard Anton (Umeå University, 01.09.13 – 18.05.18): *Exponential integrators for stochastic partial differential equations*
- ◆ Magdalena Sigg (University of Basel, 01.10.09 – 30.09.12, not until completion)
- ◆ Björn Müller (Chalmers & GU, 14.08.23–, co-supervisor): *Ongoing*
- ◆ Ioanna Motschan-Armen (Chalmers & GU, 16.08.21–, co-supervisor): *Ongoing*

- ◆ Juan Carlos Araujo-Cabarcas (Umeå University, 01.02.13 – 13.06.19, co-supervisor): *Reliable hp finite element computations of scattering resonances in nano optics*

## Mentoring of postdoctoral researcher

- ◆ Dr. Olivier Verdier (Umeå University, 01.07.13 – 31.03.15). Funded by the Kempe Foundations.

## Teaching experience

- ◆ Lecturer for more than 25 courses in mathematics (in French, English, German, and Swedish). This spans ca. 20 different subjects from undergraduate to postgraduate level in 8 different universities across Europe and one institute in Africa
- ◆ Qualified Teacher at the Faculty of Science and Technology, Umeå University

## Grants

- ◆ Grant from the **Digital Transformation Programme for Chalmers** (October 2022, sole applicant)
- ◆ FY2022 Seminar Funding by the **Japan Society for the Promotion of Science** (Alumni Club) (May 2022, sole applicant)
- ◆ Project Research Grant nr. 2018 – 04443 financed by the **Swedish Research Council** (*Numerical analysis and simulation of PDEs with random dispersion*, 01.01.19 – 31.12.22, sole applicant)
- ◆ Erasmus Teaching Staff Mobility from **Erasmus +** (March 2018, sole applicant)
- ◆ **FRÖ** mobility program between French and Swedish researchers (*Effective numerical methods for partial differential equations with random dispersion*, January 2018, sole applicant)
- ◆ Joint China-Sweden Mobility grant financed by **STINT** and **NSF China** (*Numerical methods for stochastic partial differential equations*, January 2017, main applicant)
- ◆ Initiation Grant financed by **STINT** (*Efficient numerical discretisations of stiff stochastic and random differential equations*, May 2015, sole applicant)
- ◆ Research exchange grant financed by the **The G S Magnuson Foundation** (*Effective numerical methods for stochastic Schrödinger equations*, April 2015, sole applicant)
- ◆ Project Research Grant financed by the **Swedish Research Council** (*Explicit numerical methods for the time discretisation of stochastic wave equations*, 01.01.14 – 31.12.17, sole applicant)
- ◆ Postdoc scholarship for Dr. O. Verdier financed by the **Kempe Foundations** (01.07.13 – 31.03.15, sole applicant)
- ◆ Research exchange grant financed by the **Lars Hierta Memorial Foundation** (March 2013, sole applicant)
- ◆ Research exchange grant with Japan financed by the **Royal Swedish Academy of Sciences** and the **Japan Society for the Promotion of Science** (January 2013, sole applicant)
- ◆ Project grant no. 200021\_127130 financed by the **Swiss National Science Foundation** (*Numerical methods for stochastically driven wave equations*, 01.10.09 – 30.09.12, sole applicant)
- ◆ Fellowships for prospective researchers financed by the **Swiss National Science Foundation** (01.10.04 – 30.09.05, sole applicant)

## Research Stays

- ◆ Oberwolfach Research Institute for Mathematics (invited, several occasions): MFO, Oberwolfach, Germany
- ◆ Mittag-Leffler Institute (invited, several occasions): IML, Sweden
- ◆ Workshop on Multiscale Analysis and Methods for Dispersive PDEs and Fluid Equations, Institute for Mathematical Sciences, NUS (invited, 17.02.20 – 28.02.20): Singapore, Singapore
- ◆ Bernoulli Center (13.12.19 – 20.12.19): Lausanne, Switzerland
- ◆ AMSS, Chinese Academy of Sciences (invited, 10.10.18 – 19.10.18): Beijing, PR China
- ◆ INRIA Lille Nord Europe (10.09.18 – 22.09.18): Lille, France

- ◆ AMSS, Chinese Academy of Sciences (invited, 23.05.17 – 01.06.17): Beijing, PR China
- ◆ Hong Kong Baptist University (invited, 23.01.17 – 25.01.17): Hong-Kong SAR, PR China
- ◆ Fundação Getulio Vargas (grant, 08.02.16 – 24.02.16): Rio de Janeiro, Brazil
- ◆ AMSS, Chinese Academy of Sciences (invited, 30.07.15 – 15.08.15): Beijing, PR China
- ◆ INRIA Lille Nord Europe (invited, 18.05.15 – 29.05.15): Lille, France
- ◆ Universitat Autònoma de Barcelona (invited, 30.06.14 – 04.07.14): Barcelona, Spain
- ◆ *Stochastic Computations* at the AMSS, Chinese Academy of Sciences (invited, 10.02.14 – 07.03.14): Beijing, PR China
- ◆ University of Tokyo and Kyushu Institute of Technology (grant, 07.01.13 – 28.01.13): Tokyo and Fukuoka, Japan
- ◆ Universitat Autònoma de Barcelona (invited, 22.07.12 – 28.07.12): Barcelona, Spain
- ◆ INRIA Lille Nord Europe (invited, 31.01.12 – 04.02.12): Lille, France
- ◆ University of Tokyo (invited, 16.01.12 – 23.01.12): Tokyo, Japan
- ◆ Banff International Research Station (invited, June 2011): Workshop on KAM theory and Geometric Integration
- ◆ Junior Hausdorff Trimester Program on Stochastics (invited, 01.09.10 – 31.12.10): HIM, Bonn, Germany
- ◆ Isaac Newton Institute (invited, 25.03.07 – 08.04.07, 24.06.07 – 06.07.07): Cambridge, UK

## Publications

Preprints and links to the original publications available under

<http://www.math.chalmers.se/~cohend/>

- [1] D. Cohen, E. Hairer and C. Lubich, *Modulated Fourier expansions of highly oscillatory differential equations*, Foundations of Comput. Math., 2003 (3(4)), 327–345, <http://dx.doi.org/10.1007/s10208-002-0062-x>.
- [2] D. Cohen, E. Hairer and C. Lubich, *Numerical energy conservation for multi-frequency oscillatory differential equations*, BIT, 2005 (45(2)), 287–305, <http://dx.doi.org/10.1007/s10543-005-7121-z>.
- [3] D. Cohen, *Conservation properties of numerical integrators for highly oscillatory Hamiltonian systems*, IMA J NUMER ANAL, 2006 (26(1)), 34–59, <http://dx.doi.org/10.1093/imanum/dri020>.
- [4] D. Cohen, T. Jahnke, K. Lorenz and C. Lubich, *Numerical integrators for highly oscillatory Hamiltonian systems: a review*, Analysis, Modeling and Simulation of Multiscale Problems, A. Mielke (ed.), Springer, Berlin, 2006, [http://dx.doi.org/10.1007/3-540-35657-6\\_20](http://dx.doi.org/10.1007/3-540-35657-6_20).
- [5] D. Cohen, E. Hairer and C. Lubich, *Long-time analysis of nonlinearly perturbed wave equations via modulated Fourier expansions*, Arch. Rat. Mech. Anal., 2008 (187(2)), 341–368, <http://dx.doi.org/10.1007/s00205-007-0095-z>.
- [6] E. Celledoni, D. Cohen and B. Owren, *Symmetric exponential integrators with an application to the cubic Schrödinger equation*, Foundations of Comput. Math., 2008 (8(3)), 303–317, <http://dx.doi.org/10.1007/s10208-007-9016-7>.
- [7] D. Cohen, E. Hairer and C. Lubich, *Conservation of energy, momentum and actions in numerical discretizations of nonlinear wave equations*, Numer. Math., 2008 (110(2)), 113–143, <http://dx.doi.org/10.1007/s00211-008-0163-9>.
- [8] D. Cohen, B. Owren and X. Raynaud, *Multi-symplectic integration of the Camassa–Holm equation*, J. Comp. Phys., 2008 (227(11)), 5492–5512, <http://dx.doi.org/10.1016/j.jcp.2008.01.051>.
- [9] D. Cohen and X. Raynaud, *Geometric finite difference schemes for the generalized hyperelastic-rod wave equation*, J. Comput. App. Math., 2011 (235(8)), 1925–1940, <http://dx.doi.org/10.1016/j.cam.2010.09.015>.

- [10] D. Cohen and E. Hairer, *Linear energy-preserving integrators for Poisson systems*, BIT, 2011 (**51(1)**), 91–101, <http://dx.doi.org/10.1007/s10543-011-0310-z>.
- [11] D. Cohen and M. Sigg, *Convergence analysis of trigonometric methods for stiff second-order stochastic differential equations*, Numer. Math., 2012 (**121(1)**), 1–29, <http://dx.doi.org/10.1007/s00211-011-0426-8>.
- [12] D. Cohen and X. Raynaud, *Convergent numerical schemes for the compressible hyperelastic–rod wave equation*, Numer. Math., 2012 (**122(1)**), 1–59, <http://dx.doi.org/10.1007/s00211-012-0452-1>.
- [13] D. Cohen, *On the numerical discretisation of stochastic oscillators*, Math. Comp. Simul., 2012 (**82(8)**), 1478–1495, <http://dx.doi.org/10.1016/j.matcom.2012.02.004>.
- [14] D. Cohen and L. Gauckler, *One-stage exponential integrators for nonlinear Schrödinger equations over long times*, BIT, 2012 (**52(4)**), 877–903, <http://dx.doi.org/10.1007/s10543-012-0385-1>.
- [15] A. Abdule, D. Cohen, G. Vilmart and K.C. Zygalakis, *High order weak methods for stochastic differential equations based on modified equations*, SIAM J. Sci. Comp., 2012 (**34(3)**), A1800–A1823, <http://dx.doi.org/10.1137/110846609>.
- [16] D. Cohen, S. Larsson and M. Sigg, *A trigonometric method for the linear stochastic wave equation*, SIAM J. Numer. Anal., 2013 (**51(1)**), 204–222, <http://dx.doi.org/10.1137/12087030X>.
- [17] D. Cohen and G. Dujardin, *Energy-preserving integrators for stochastic Poisson systems*, Comm. Math. Sci., 2014 (**12(8)**), 1523–1539, <http://dx.doi.org/10.4310/CMS.2014.v12.n8.a7>.
- [18] D. Cohen, T. Matsuo and X. Raynaud, *A multi-symplectic numerical integrator for the two-component Camassa–Holm equation*, J. Nonlinear Math. Phys., 2014 (**21(3)**), 442–453, <http://dx.doi.org/10.1080/14029251.2014.936763>.
- [19] D. Cohen, L. Gauckler, E. Hairer and Ch. Lubich, *Long-term analysis of numerical integrators for oscillatory Hamiltonian systems under minimal non-resonance conditions*, BIT, 2015 (**55(3)**), 705–732, <http://dx.doi.org/10.1007/s10543-014-0527-8>.
- [20] D. Cohen and J. Schweitzer, *High order numerical methods for highly oscillatory problems*, ESAIM:M2AN, 2015 (**49(3)**), 695–711, <http://dx.doi.org/10.1051/m2an/2014056>.
- [21] D. Cohen and L. Quer-Sardanyons, *A fully discrete approximation of the one-dimensional stochastic wave equation*, IMA J NUMER ANAL, 2016 (**36(1)**), 400–420, <http://dx.doi.org/10.1093/imanum/drv006>.
- [22] C. Chen, D. Cohen and J. Hong, *Conservative methods for stochastic differential equations with a conserved quantity*, Int J Numer Anal Model, 2016 (**13(3)**), 435–456, <http://www.math.ualberta.ca/ijnam/Volume-13-2016/No-3-16/2016-03-06.pdf>.
- [23] D. Cohen and O. Verdier, *Multi-symplectic discretisation of wave map equations*, SIAM J. Sci. Comp, 2016 (**38(2)**), A953–A972, <http://dx.doi.org/10.1137/15M1014322>.
- [24] R. Anton, D. Cohen, S. Larsson and X. Wang, *Full discretisation of semi-linear stochastic wave equations driven by multiplicative noise*, SIAM J. Numer. Anal., 2016 (**54(2)**), 1093–1119, <http://dx.doi.org/10.1137/15M101049X>.
- [25] D. Cohen and G. Dujardin, *Exponential integrators for nonlinear Schrödinger equations with white noise dispersion*, Stoch PDE: Anal Comp, 2017 (**5(4)**), 592–613, <http://dx.doi.org/10.1007/s40072-017-0098-1>.
- [26] Y. Miyatake, D. Cohen, D. Furihata and T. Matsuo, *Geometric numerical integrators for Hunter–Saxton-like equations*, JJIAM, 2017 (**34(2)**), 441–472, <http://dx.doi.org/10.1007/s13160-017-0252-1>.

- [27] Y. Komori, D. Cohen and K. Burrage, *Weak second order explicit exponential Runge–Kutta methods for stochastic differential equations*, SIAM J. Sci. Comp, 2017 (**39(6)**), A2857–A2878, <https://doi.org/10.1137/15M1041341>.
- [28] R. Anton and D. Cohen, *Exponential integrators for stochastic Schrödinger equations driven by Itô noise*, special issue on SPDEs of J. Comput. Math., 2018 (**36(2)**), 276–309, <http://dx.doi.org/10.4208/jcm.1701-m2016-0525>.
- [29] D. Cohen, *Numerical discretisations of stochastic wave equations*, AIP Conference Proceedings, 2018 (**1978(1)**), 020001 (1–5), <https://doi.org/10.1063/1.5043646>.
- [30] R. Anton, D. Cohen and L. Quer-Sardanyons, *A fully discrete approximation of the one-dimensional stochastic heat equation*, IMA J NUMER ANAL, 2020 (**40(1)**), 247284, <https://doi.org/10.1093/imanum/dry060>.
- [31] D. Cohen, J. Cui, J. Hong and L. Sun, *Exponential Integrators for Stochastic Maxwell’s Equations Driven by Ito Noise*, J. Comput. Phys., 2020 (**410**), <https://doi.org/10.1016/j.jcp.2020.109382>.
- [32] C. Chen, D. Cohen, R. D’Ambrosio, and A. Lang, *Drift-preserving numerical integrators for stochastic Hamiltonian systems*, Adv Comput Math., 2020 (**46(27)**), 1–22, <https://doi.org/10.1007/s10444-020-09771-5>.
- [33] D. Cohen, K. Debrabant, and A. Rößler, *High order numerical integrators for single integrand Stratonovich SDEs*, APPL NUMER MATH, 2020 (**158**), 264–270, <https://doi.org/10.1016/j.apnum.2020.08.002>.
- [34] A. Berg, D. Cohen, and G. Dujardin, *Lie–Trotter splitting for the nonlinear stochastic Manakov system*, submitted, <https://arxiv.org/abs/2010.15679>, 22.10.2020. J. Sci. Comput., 2021 (**88(6)**), <https://doi.org/10.1007/s10915-021-01514-y>
- [35] D. Cohen and G. Vilmart, *Drift-preserving numerical integrators for stochastic Poisson systems*, submitted, <https://arxiv.org/abs/2005.13991>, 27.05.2020. Int. J. Comput. Math, 2021, <https://doi.org/10.1080/00207160.2021.1922679>.
- [36] A. Berg, D. Cohen, and G. Dujardin, *Approximated exponential integrators for the stochastic Manakov equation*, submitted, <https://arxiv.org/abs/2005.04978>, 2020. JCD, 2023 (**10(2)**), 323–344, <https://doi.org/10.3934/jcd.2023002>, 10.03.2023.
- [37] C.-E. Bréhier and D. Cohen, *Strong rates of convergence of a splitting scheme for Schrödinger equations with nonlocal interaction cubic nonlinearity and white noise dispersion*, submitted, <https://arxiv.org/abs/2011.01115>, 03.11.2020. SIAM/ASA JUQ, 2022 (**10(1)**), <https://doi.org/10.1137/20M1378168>.
- [38] D. Cohen and A. Lang, *Numerical approximation and simulation of the stochastic wave equation on the sphere*, submitted, <https://arxiv.org/abs/2102.04224>, 08.02.2021. Calcolo, 2022 (**59:32**), <https://doi.org/10.1007/s10092-022-00472-7>.
- [39] C.-E. Bréhier, D. Cohen, and T. Jahnke, *Splitting integrators for stochastic Lie–Poisson systems*, submitted, <https://arxiv.org/abs/2111.07387>, 16.11.2021. Math. Comp, 2023 (**92:343**), 2167–2216, <https://doi.org/10.1090/mcom/3829>.
- [40] C.-E. Bréhier, D. Cohen, and G. Giordano, *Splitting schemes for FitzHugh–Nagumo stochastic partial differential equations*, submitted, <https://arxiv.org/abs/2207.10484>, 22.07.2022. Discrete Continuous Dyn Syst Ser B, 2024, 29 (1), 214–244, <https://doi.org/10.3934/dcdsb.2023094>, 10.05.2023.
- [41] C.-E. Bréhier and D. Cohen, *Analysis of a splitting scheme for a class of nonlinear stochastic Schrödinger equations*, submitted, <https://arxiv.org/abs/2007.02354>, 15.11.2022. Applied Numerical Mathematics, 2023 (**186**), 57–83, <https://doi.org/10.1016/j.apnum.2023.01.002>, 05.01.2023.
- [42] C.-E. Bréhier, D. Cohen, and J. Ulander, *Analysis of a positivity-preserving splitting scheme for some nonlinear stochastic heat equations*, submitted, <http://arxiv.org/abs/2302.08858>, 17.02.2023.

- [43] C.-E. Bréhier, D. Cohen, and J. Ulander, *Positivity-preserving schemes for some nonlinear stochastic PDEs*, submitted, <https://arxiv.org/abs/2304.11064>, 17.02.2023. Proceedings of the Sixteenth International Conference Zaragoza-Pau on Mathematics and its Applications 2022, *Mografías Matemáticas García de Galdeano*, 43, 31-40 (2024).
- [44] M. Cai, D. Cohen, and X. Wang, *Strong convergence rates for a full discretization of stochastic wave equation with nonlinear damping*, submitted, <https://doi.org/10.48550/arXiv.2307.01975>, 06.07.2023.
- [45] C.-E. Bréhier and D. Cohen, *Splitting integrators for linear Vlasov equations with stochastic perturbations*, submitted, <https://arxiv.org/abs/2402.18982>, 12.07.2023. *Journal of Computational Dynamics*, <https://doi.org/10.3934/jcd.2024014>, 23.03.2024.



## Presentations and conferences attended (\* invited)

- June 2025* : Workshop Stochastic Partial Differential Equations, Brin Mathematics Research Center, USA (invited plenary speaker\*, "tba")
- September 2024* : Workshop on Numerical Analysis and Applications of SDEs, Będlewo Conference Center, Poland (lecture delivered\*, entitled "tba")
- June 2024* : Mini-symposium Stochastic Partial Differential Equations at Equadiff 2024, University of Karlstad, Sweden (lecture delivered\*, entitled "tba")
- May 2024* : Workshop Constrained Dynamics, Stochastic Numerical Methods and the Modeling of Complex Systems, Oberwolfach, Germany
- April 2024* : Section 4 seminar, University of Oslo, Norway (lecture delivered\*, "Analysis of a positivity-preserving splitting scheme for some semilinear stochastic heat equations")
- June 2023* : Workshop Stochastic Computation, FoCM 2023, Paris, France
- May 2023* : NASPDE 2023, Eindhoven, the Netherlands (invited speaker\*, "Analysis of a positivity-preserving splitting scheme for some nonlinear stochastic heat equations")
- March 2023* : Online seminar, (speaker\*, "Numerical analysis of stochastic Poisson systems"), Irish Numerical Analysis Forum, Ireland
- December 2022* : Online seminar, (speaker\*, "Numerical analysis of stochastic Poisson systems"), Southern University of Science and Technology, PR China
- December 2022* : Theoretical and computational aspects of dynamical systems, A conference on the occasion of the 60th birthdays of Hans Munthe-Kaas and Brynjulf Owren (speaker\*, "Splitting integrators for stochastic Lie–Poisson systems"), Trysil, Norway
- October 2022* : 4th Workshop on Scientific Computing in Sweden, Gothenburg, Sweden
- October 2022* : JSPS AC seminar (speaker, "Splitting integrators for stochastic Lie–Poisson systems"), Gothenburg, Sweden
- September 2022* : Workshop on Numerical Analysis and Applications of SDEs, Będlewo Conference Center, Poland (lecture delivered\*, entitled "Splitting integrators for stochastic Lie–Poisson systems")
- September 2022* : ICNAAM 2022, Heraklion, Greece (invited speaker\*, "Numerical discretisations of stochastic Hamiltonian and Poisson systems")
- September 2022* : Workshop "Theory and Computational Methods for SPDEs", BIRS-CMO, Oaxaca, Mexico
- July 2022* : MS Numerical approximation of stochastic problems at SciCADE 2022, Reykjavík, Iceland (lecture delivered\*, entitled "Splitting integrators for stochastic Lie–Poisson systems")
- June 2022* : Stability and Discretization Issues in Differential Equations Workshop (SDIDE 2021), Budapest, Hungary (invited speaker\*, "Splitting integrators for stochastic Lie–Poisson systems")
- February 2022* : The DNA seminar, NTNU Trondheim, (speaker\*, entitled "Efficient discretisations of stochastic Hamiltonian and Poisson systems")
- December 2021* : Research seminars in mathematics, Örebro University, Sweden (speaker\*, entitled "Efficient discretisations of stochastic Hamiltonian and Poisson systems")
- October 2021* : Seminar in NA, Lund University, Sweden (speaker\*, entitled "Efficient discretisations of stochastic Hamiltonian and Poisson systems")
- September 2021* : KAAS seminar, Karlstad University, Sweden (lecture delivered\*, entitled "A fully discrete approximation of the one-dimensional stochastic heat equation")
- September 2021* : NumDiff-16, Halle, Germany (lecture delivered\*, "Time integration of the stochastic Manakov equation")
- August 2021* : 13th International Conference on Monte Carlo Methods and Applications, University of Mannheim and online
- August 2021* : BIT60 conference, Uppsala University, Sweden (postponed due to COVID-19)
- July 2021* : MS Numerical methods and analysis for oscillatory dispersive PDEs (SciCADE 2021), Reykjavík, Iceland (postponed due to COVID-19)
- June 2021* : Seminar at AIMS, Senegal (speaker\*, entitled "Drift-preserving numerical integrators for random Hamiltonian systems")



- June 2021* : Stability and Discretization Issues in Differential Equations Workshop (SDIDE 2021), Budapest, Hungary (postponed due to COVID-19)
- May 2021* : Conference of Numerical Probability in honour of Gilles Pagès' 60th birthday, Paris and Online
- April 2021* : Online Colloquium Talk at the Department of Applied Mathematics, The Hong Kong Polytechnic University, (speaker\*, entitled "A fully discrete approximation of the one-dimensional stochastic heat equation")
- March 2021* : Oberwolfach Workshop Geometric Numerical Integration, Oberwolfach and Zoom, Germany
- January 2021* : Numerics for Evolutive Problems and Applications, Zoom, Planet Earth (speaker\*, entitled "Splitting scheme for Schrödinger equations with white noise dispersion")
- October 2020* : Numerics of PDEs unplugged 2020, Zoom, KIT, Karlsruhe, Germany (lecture delivered\*, entitled "Analysis of a splitting scheme for a class of nonlinear stochastic Schrödinger equations")
- October 2020* : Workshop on Numerical Analysis and Applications of SDEs, Bedlewo Conference Center, Poland (postponed due to COVID-19)
- September 2020* : Lecturer of the "Crash course on numerics for SDEs", Central South University, Zoom (Changsha, PR China)
- September 2020* : Workshop "Theory and Computational Methods for SPDEs", BIRS-CMO, Oaxaca, Mexico (postponed due to COVID-19)
- August 2020* : Bernoulli-IMS One World Symposium 2020, Zoom
- July 2020* : Virtual Seminar on Stochastic Analysis, Random Fields and Applications, Zoom (Ascona, Switzerland)
- June 2020* : AMCS Day, The University of Iowa, Iowa City (lecture delivered\*, entitled "Drift-preserving schemes for stochastic Hamiltonian systems")
- May 2020* : One World Virtual Seminar Series - Stochastic Numerics and Inverse Problems, ICMS, Edinburgh (guest speaker\*, lecture entitled "Drift-preserving schemes for stochastic Hamiltonian and Poisson systems")
- July 2020* : Lecturer at the Summer school "Numerical approximation of SDEs", University of Salerno, Italy (postponed due to COVID-19)
- June 2020* : Stochastic Computation, FoCM 2020, Vancouver, Canada (cancelled)
- June 2020* : Stability and Discretization Issues in Differential Equations Workshop (SDIDE 2020), Budapest, Hungary (postponed due to COVID-19)
- April 2020* : Seminar, Chalmers University of Technology/University of Gothenburg, Gothenburg, Sweden (lecture delivered, entitled "GNI: From ODEs to SPDEs")
- March 2020* : Seminar, KIT, Karlsruhe, Germany (lecture delivered\*, entitled "Time integration of randomly perturbed Schrödinger-type equations")
- March 2020* : Seminar, University of Tübingen, Tübingen, Germany (lecture delivered\*, entitled "Drift-preserving numerical integrators for stochastic Hamiltonian systems")
- February 2020* : Workshop Multiscale Analysis and Methods for Dispersive PDEs and Fluid Equations, IMS, NUS, Singapore, Singapore (lecture delivered\*, entitled "Time integration of randomly perturbed Schrödinger-type equations")
- December 2019* : Seminar, EPFL, Lausanne, Switzerland (lecture delivered\*, entitled "Drift-preserving numerical integrators for stochastic Hamiltonian systems")
- September 2019* : Seminar, East China Jiaotong University, Nanchang, PR China (lecture delivered\*, entitled "Exponential integrators for stochastic partial differential equations")
- September 2019* : Seminar, Central South University, Changsha, PR China (lecture delivered\*, entitled "Drift-preserving numerical integrators for stochastic Hamiltonian systems")
- September 2019* : Seminar, Qufu Normal University, Qufu, PR China (lecture delivered\*, entitled "Exponential integrators for stochastic partial differential equations")
- September 2019* : Geometric Numerical Integration of Differential Equations, AMSS, Chinese Academy of Sciences, Beijing, PR China (lecture delivered\*, entitled "Drift-preserving numerical integrators for stochastic Hamiltonian systems")

- July 2019* : SciCADE 2019, Innsbruck, Austria (lecture delivered\*, entitled “Drift-preserving numerical integrators for stochastic Hamiltonian systems”)
- June 2019* : Workshop HaLu-2019, GSSI, L’Aquila, Italy (invited speaker\*, entitled “Exponential integrators for stochastic partial differential equations”)
- June 2019* : Workshop on the Theory and Applications of Stochastic Partial Differential Equations, The Fields Institute, Toronto, Canada (invited speaker\*, “Exponential integrators for stochastic partial differential equations”)
- May 2019* : ‘Numerical Methods for SPDE: 20 successful years and future challenges\*, Mittag-Leffler Institute, Sweden
- April 2019* : UMIT seminar, Umeå, Sweden (lecture delivered, entitled “Drift-preserving numerical integrators for stochastic Hamiltonian systems”)
- March 2019* : Séminaire d’analyse numérique, Geneva, Switzerland (lecture delivered\*, entitled “Exponential integrators for nonlinear Schrödinger equations with white noise dispersion”)
- October 2018* : Forum on numerical analysis of SPDE, AMSS, Chinese Academy of Sciences, Beijing, China (lecture delivered\*, entitled “A fully discrete approximation of the one-dimensional stochastic heat equation”)
- October 2018* : Workshop on Scientific Computing in Sweden, Lund, Sweden (lecture delivered, entitled “A fully discrete approximation of the one-dimensional stochastic heat equation”)
- September 2018* : Séminaire en analyse numérique et équations aux dérivées partielles, Lille, France (lecture delivered\*, “Exponential integrators for stochastic partial differential equations”)
- September 2018* : NumDiff-15, Halle, Germany (plenary speaker\*, “Exponential integrators for stochastic partial differential equations”)
- August 2018* : NM & A’18, Borovets, Bulgaria (lecture delivered\*, entitled “A fully discrete approximation of the one-dimensional stochastic heat equation”)
- June 2018* : International Workshop on Computational Mathematics, Suzhou, PR China (invited speaker\*, “Exponential integrators for stochastic partial differential equations”)
- May 2018* : Central South University, Changsha, China (lecture delivered\*, entitled “A fully discrete approximation of the one-dimensional stochastic heat equation”)
- May 2018* : AMSS, Chinese Academy of Sciences, Beijing, China (lecture delivered\*, entitled “Full discretisation of semi-linear stochastic wave equations driven by multiplicative noise”)
- May 2018* : Seminar, Jaume I University, Castelló de la Plana, Spain (lecture delivered\*, entitled “Numerical discretisations of stochastic wave equations”)
- February 2018* : Seminar, University of Salerno, Italy (lecture delivered\*, entitled “Numerical discretisations of stochastic wave equations”)
- February 2018* : Seminar, University of Salerno, Italy (lecture delivered\*, entitled “Exponential integrators for nonlinear Schrödinger equations with white noise dispersion”)
- February 2018* : Seminar, University of Salerno, Italy (lecture delivered\*, entitled “Energy-preserving integrators for stochastic Poisson systems”)
- February 2018* : Seminar, University of L’Aquila, Italy (lecture delivered\*, entitled “Numerical discretisations of stochastic wave equations”)
- January 2018* : Seminar in Numerical Analysis, KTH, Stockholm, Sweden (lecture delivered\*, entitled “Exponential integrators for nonlinear Schrödinger equations with white noise dispersion”)
- November 2017* : UMIT seminar, Umeå, Sweden (lecture delivered, entitled “A fully discrete approximation of the one-dimensional stochastic heat equation”)
- September 2017* : ICNAAM 2017, Thessaloniki, Greece (invited speaker\*, “Numerical discretisations of stochastic wave equations”)
- September 2017* : SciCADE 2017, Bath, UK

- September 2017* : Research seminars in Scientific Computation, University of Nottingham, UK (lecture delivered\*, entitled "Numerical discretisations of stochastic wave equations")
- July 2017* : International Workshop on BSDEs, SPDEs and their Applications, Edinburgh, UK (lecture delivered\*, entitled "Exponential integrators for nonlinear Schrödinger equations with white noise dispersion")
- June 2017* : NASPDE 2017, Linz, Austria (invited speaker\*, "A fully discrete approximation of the one-dimensional stochastic heat equation")
- June 2017* : Meeting of the Catalan, Spanish, Swedish Math Societies, Umeå, Sweden
- May 2017* : Forum on Scientific and Engineering Computing, Beijing, PR China (invited speaker\*, "Exponential integrators for stochastic Schrödinger equations driven by Itô noise")
- March 2017* : Winter Conference in Statistics 2017, Åre, Sweden
- February 2017* : Mini-workshop Stochastic Differential Equations: Regularity and Numerical Analysis in Finite and Infinite Dimensions, Oberwolfach, Germany (plenary lecture delivered\*, entitled "Exponential integrators for stochastic Schrödinger equations driven by Itô noise")
- January 2017* : Workshop of Multiscale methods for stochastic dynamics, Geneva, Switzerland
- January 2017* : Séminaire d'analyse numérique, Geneva, Switzerland (lecture delivered\*, entitled "Exponential integrators for stochastic Schrödinger equations driven by Itô noise")
- January 2017* : Colloquium, Hong Kong Baptist University, Hong Kong SAR, PR China (lecture delivered\*, entitled "Exponential integrators for stochastic Schrödinger equations driven by Itô noise")
- January 2017* : The 10th International Conference on Computational Physics, Macau SAR, PR China (key note speaker at mini-symposium C14\*, entitled "Exponential integrators for nonlinear Schrödinger equations with white noise dispersion")
- December 2016* : UMIT seminar, Umeå, Sweden (lecture delivered, entitled "Exponential integrators for various stochastic Schrödinger equations")
- November 2016* : 9th NAI Workshop Numerical Analysis of Evolution Equations, Vill/Innsbruck, Austria (lecture delivered, entitled "Exponential integrators for nonlinear Schrödinger equations with white noise dispersion")
- October 2016* : Scientific Computing in Sweden, Uppsala University, Uppsala, Sweden (lecture delivered, entitled "Exponential integrators for nonlinear Schrödinger equations with white noise dispersion")
- October 2016* : Guest lecture at Johannes Kepler Universität Linz, Austria (lecture delivered\*, entitled "Fully discrete approximation of one-dimensional stochastic wave equations")
- September 2016* : NASPDE 2016, Chalmers University of Technology/University of Gothenburg, Gothenburg, Sweden (plenary lecture delivered\*, entitled "Exponential integrators for nonlinear Schrödinger equations with white noise dispersion")
- July 2016* : 7th European Congress of Mathematics, TU Berlin, Berlin, Germany (lecture delivered\*, entitled "Exponential integrators for nonlinear Schrödinger equations with white noise dispersion")
- June 2016* : Seminar, NTNU, Trondheim, Norway (lecture delivered\*, entitled "HOP: From ODE to SPDE")
- April 2016* : 12th Austrian Numerical Analysis Day, Innsbruck, Austria (plenary lecture delivered\*, entitled "Numerical discretisations of stochastic wave equations by trigonometric integrators")
- March 2016* : Workshop on Geometric Numerical Integration, Oberwolfach, Germany (plenary lecture delivered\*, entitled "Numerical discretisations of stochastic wave equations")
- February 2016* : Fundação Getulio Vargas, Rio de Janeiro, Brazil (lecture delivered, entitled "Mini-course on Geometric Numerical Integration")
- September 2015* : SciCADE 2015, Potsdam, Germany (lecture delivered\*, entitled "Fully discrete approximation of one-dimensional stochastic wave equations")

- September 2015* : Numdiff-14, Halle, Germany (lecture delivered\*, entitled “Multi-symplectic discretisation of wave map equations”)
- August 2015* : ICIAM 2015, Beijing, China
- August 2015* : AMSS, Chinese Academy of Sciences, Beijing, China (lecture delivered\*, entitled “Numerical discretisation of one-dimensional stochastic wave equations”)
- June 2015* : Workshop on advances in numerical methods for SPDEs\*, Mittag-Leffler Institute, Sweden
- May 2015* : Séminaire en analyse numérique et équations aux dérivées partielles, Lille, France (lecture delivered\*, entitled “Numerical discretisation of one-dimensional stochastic wave equations”)
- April 2015* : Seminar in Numerical Analysis, Basel, Switzerland (lecture delivered\*, entitled “A fully discrete approximation of the one-dimensional stochastic wave equation”)
- February 2015* : UMIT seminar, Umeå, Sweden (lecture delivered, entitled “GNI: From ODEs to SPDEs”)
- December 2014* : Séminaire d’analyse numérique, Geneva, Switzerland (lecture delivered\*, entitled “A fully discrete approximation of the one-dimensional stochastic wave equation”)
- December 2014* : Séminaire d’analyse numérique, EPFL, Switzerland (lecture delivered\*, entitled “A fully discrete approximation of the one-dimensional stochastic wave equation”)
- September 2014* : Workshop on NASPDE 2014, EPFL, Lausanne, Suisse.
- August 2014* : International conference on stochastic analysis and related topics, IMECC-UNICAMP, Campinas, Brazil (plenary lecture delivered\*, entitled “Energy-preserving integrators for stochastic Poisson systems”)
- March 2014* : Umeå University, Sweden (docent lecture, entitled “Numerical solutions of ODEs”)
- March 2014* : Uppsala University, Sweden (lecture delivered\*, entitled “Energy-preserving integrators for stochastic Poisson systems”)
- February 2014* : Central South University, Changsha, China (lecture delivered\*, entitled “Energy-preserving integrators for stochastic Poisson systems”)
- February 2014* : Series of plenary presentations\*, AMSS, Chinese Academy of Sciences, Beijing, China
- December 2013* : Séminaire d’analyse numérique, Geneva, Switzerland (lecture delivered\*, entitled “A trigonometric method for the linear stochastic wave equation”)
- September 2013* : SciCADE 2013, Valladolid, Spain (lecture delivered\*, entitled “Energy-preserving integrators for stochastic Poisson systems”)
- January 2013* : Workshop on structure-preserving methods at the University of Tokyo, Tokyo, Japan (plenary lecture delivered, entitled “Exponential integrators for nonlinear Schrödinger equations over long times”)
- December 2012* : Séminaire d’analyse numérique, Geneva, Switzerland (lecture delivered\*, entitled “Energy-preserving integrators for stochastic Poisson systems”)
- October 2012* : Umeå universitet, Umeå, Sweden (lecture delivered, entitled “HOP: From ODE to SPDE”)
- July 2012* : 9th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA (lecture delivered\*, entitled “Exponential integrators for nonlinear Schrödinger equations over long times”)
- June 2012* : Workshop on Stochastic Analysis and Applications, EPFL, Lausanne, Switzerland
- May 2012* : Universität Göttingen, Göttingen, Germany (lecture delivered\*, entitled “HOP: From ODE to SPDE”)
- May 2012* : Universität Tübingen, Tübingen, Germany (lecture delivered\*, entitled “A trigonometric method for the linear stochastic wave equation”)
- January 2012* : University of Reading, Reading, United Kingdom (lecture delivered\*, entitled “HOP: From ODE to SPDE”)
- January 2012* : Workshop on structure-preserving methods at the University of Tokyo, Tokyo, Japan (lecture delivered\*, entitled “HOP: From ODE to SPDE”)
- November 2011* : Heriot-Watt University, Edinburgh, United Kingdom (lecture delivered\*, entitled “HOP: From ODE to SPDE”)

- October 2011* : Arbeitsgemeinschaft Analysis, Zürich, Switzerland (lecture delivered\*, entitled "Exponential integrators for nonlinear Schrödinger equations over long times")
- September 2011* : Stochastic Partial Differential Equations: Analysis, Numerics, Geometry and Modeling, ETH Zürich, Switzerland (poster entitled "Discretisation of the stochastic wave equation by trigonometric methods")
- July 2011* : Foundations of Computational Mathematics conference, Budapest, Hungary (lecture delivered\*, entitled "Convergence analysis of trigonometric methods for stiff second-order stochastic differential equations")
- June 2011* : Workshop "KAM theory and Geometric Integration"\*, Banff International research station, Canada
- May 2011* : Colloque du mardi, Neuchâtel, Switzerland (lecture delivered\*, entitled "HOP: From ODE to SDE")
- May 2011* : Schweizer Numerik Kolloquium, USI Lugano, Switzerland (poster entitled "Trigonometric Methods for Stiff Second-Order Stochastic Differential Equations")
- April 2011* : Séminaire d'analyse numérique, EPFL, Switzerland (lecture delivered\*, entitled "Convergence analysis of trigonometric methods for stiff second-order stochastic differential equations")
- March 2011* : Workshop on Geometric Numerical Integration, Oberwolfach, Germany (lecture delivered\*, entitled "Trigonometric schemes for stiff second-order SDEs")
- March 2011* : Workshop MaGIC, Finse, Norway (lecture delivered\*, entitled "Convergence analysis of trigonometric methods for stiff second-order stochastic differential equations")
- November 2010* : CMA Guest Lectures, Oslo, (lecture delivered\*, entitled "Numerical discretisation of stochastic oscillators with a high frequency")
- November 2010* : AG Numerik, Tübingen, (lecture delivered\*, entitled "Numerical discretisation of stochastic oscillators")
- October 2010* : Hausdorff Institute for Mathematics, Bonn, (lecture delivered\*, entitled "Stochastic trigonometric methods")
- October 2010* : Séminaire d'analyse numérique, Geneva, (lecture delivered\*, entitled "Stochastic trigonometric methods")
- September 2010* : The Theory of Highly Oscillatory Problems: From Theory to Applications, Newton Institute, Cambridge, UK, (poster entitled "Stochastic trigonometric integrators")
- July 2010* : Workshop on Stochastic Partial Differential Equations, Newton Institute, Cambridge, UK
- June 2010* : BIT 50 - Trends in Numerical Computing, Lund, Sweden (lecture delivered\*, entitled "On the numerical discretisation of stochastic oscillators")
- May 2010* : Seminar, Buchs FH, (lecture delivered\*, entitled "GNI: Eine Panoramakarte")
- March 2010* : Workshop MaGIC, Ustaoset, Norway (lecture delivered\*, entitled "On the numerical discretisation of stochastic oscillators")
- October 2009* : Symposium in Computational Sciences, Basel, Switzerland (lecture delivered\*, entitled "The nonlinear wave equation and its numerical discretisations over long-times")
- August 2009* : ProDoc Summer School, Disentis, Switzerland
- March 2009* : Workshop MaGIC, Hornsjø, Norway
- October 2008* : Mathematikolloquium, Innsbruck, Austria (lecture delivered\*, entitled "A lot of oscillations . . .")
- April 2008* : Séminaire Mulhousien, Mulhouse, France (lecture delivered\*, entitled "Intégrateurs multi-symplectiques pour l'équation de Camassa–Holm")
- March 2008* : Seminar über Partielle Differentialgleichungen und Numerik, Zürich, Switzerland (lecture delivered\*, entitled "Multi-symplectic integrators for the Camassa–Holm equation")
- July 2007* : SciCADE 2007, Saint-Malo, France (lecture delivered\*, entitled "Geometric integrators for the Camassa–Holm equation")
- June 2007* : Workshop on Highly Oscillatory Problems, Cambridge, United Kingdom
- April 2007* : Symposium in Applied and Computational Mathematics, Basel, Switzerland (lecture delivered\*, entitled "A lot of oscillations . . .")

- April 2007* : Workshop on Applying Geometric Integrators, Edinburgh, United Kingdom (lecture delivered\*, entitled “Highly oscillatory Hamiltonian systems with non-constant mass matrix”)
- March 2007* : Workshop on Highly Oscillatory Problems, Cambridge, United Kingdom (lecture delivered\*, entitled “Highly oscillatory Hamiltonian systems with non-constant mass matrix”)
- February 2007* : Workshop MaGIC, Atnasjøen, Norway (lecture delivered\*, entitled “Modulated Fourier expansion for highly oscillatory differential equations”)
- September 2006* : Conference on Geometric Integration, Castellón, Spain (lecture delivered\*, entitled “Long-time analysis of nonlinearly perturbed wave equations via modulated Fourier expansions”)
- September 2006* : Sonderforschungsbereich 382 Verfahren und Algorithmen zur Simulation physikalischer Prozesse auf Höchstleistungsrechnern, Abschlusskolloquium, Stuttgart (presentation of a poster)
- May 2006* : Colloquium, Fribourg, Switzerland (lecture delivered\*, entitled “Highly oscillatory Hamiltonian systems”)
- April 2006* : Colloque Numérique Suisse, Lausanne, Switzerland
- March 2006* : Workshop on “Geometric Numerical Integration”, Oberwolfach (lecture delivered\*, entitled “Highly oscillatory Hamiltonian systems”)
- February 2006* : Workshop on Numerical Relativity, Tübingen, Germany
- May 2005* : SCICADE 05, Nagoya, Japan (lecture delivered, entitled “Conservation properties of numerical integrators for highly oscillatory Hamiltonian systems”)
- March 2005* : Schweizer Numerik Kolloquium, Zürich, Switzerland (lecture delivered\*, entitled “Highly oscillatory differential equations”)
- December 2004* : Molecular simulation: Algorithmic and Mathematical aspects, Paris, France
- September 2004* : Journées d’automne de la Société Mathématique Suisse, Lausanne, Switzerland (lecture delivered, entitled “Analyse et traitement numérique des équations différentielles à grandes oscillations”)
- February 2004* : Rencontre des doctorants (École doctorale), Neuchâtel, Switzerland (lecture delivered, entitled “EDOs à grandes oscillations”)
- June 2003* : Basler Numerik-Tage 2003, Basel, Switzerland
- June 2000* : Numerical Methods for ODEs (summer school), Dobbiaco, Italy

## Other professional activities

- ◆ Editorial service for [Journal of Computational Mathematics](#) (2017–)
- ◆ Editorial service for [BIT Numerical Mathematics](#) (2014–)
- ◆ Faculty representative at the recruitment board (lärrarrepresentant till anställningskommittén), Chalmers University of Technology (01.10.2023–)
- ◆ Health and safety representative (arbetsmiljöombud) at the department of Mathematical Sciences, Chalmers University of Technology (07.06.2022–)
- ◆ Director of graduate studies at the department of Mathematics and mathematical Statistics (Umeå University, 01.09.2017–31.03.2020)
- ◆ Member of the research board of the department of Mathematics and mathematical Statistics (Umeå University, 01.01.2015–31.03.2020)
- ◆ Member of the grading board, PhD thesis defence of Johan Wärnegårds (KTH Stockholm, 26.11.21)
- ◆ Member of the assessment committee, PhD thesis defence of Brice Merwine (The University of Iowa, 20.07.2021)
- ◆ Member of the assessment committee, PhD thesis defence of Nicky Cordua Mattsson (University of Southern Denmark, 25.11.2019)
- ◆ Member of the grading board, PhD thesis defence of Gabriela Malenovás (KTH Stockholm, 07.12.2018)
- ◆ Critical reviewer for the licentiate thesis of Peter Meisrimel (Lund University, 05.11.2018)
- ◆ External expert referee for the PhD thesis of Martina Moccaldi (University of Salerno, 31.10.2018)
- ◆ Discussion leader, Licentiate thesis defence of Andreas Petersson (Chalmers University of Technology,

20.12.17)

- ◆ External expert referee, PhD thesis of Martina Prugger (University of Innsbruck, 11.12.17)
- ◆ Member of the grading committee, PhD thesis defence of Adam Andersson (Chalmers University of Technology, 30.01.15)
- ◆ Opponent, PhD thesis defence of Asif Mushtaq (NTNU Trondheim, 14.11.14)
- ◆ Member of the grading committee, Licenciate thesis defence of Emadeldeen Hassan (Umeå University, 03.05.13)
- ◆ Expert evaluator for positions at KTH, Lund, Uppsala (2)
- ◆ Reviewer for ERC Consolidator Call
- ◆ Reviewer for the Austrian Science Fund (FWF) and EPSRC
- ◆ Reviewer for MathSciNet
- ◆ Reviewer for Springer Books
- ◆ Referee for the following journals:

Advances in Applied Mathematics and Mechanics; Advances in Computational Mathematics; Annals of Applied Probability; Applied Mathematics and Computation; Applied Mathematics and Optimization; Applied Numerical Mathematics; Bernoulli Journal; BIT Numerical Mathematics; Communications in Computational Physics; Computational Methods in Applied Mathematics; Computer Physics Communications; Discrete and Continuous Dynamical System - A; Discrete and Continuous Dynamical System - B; ESAIM: M2AN; ESAIM: PS; ETNA; FoCM; IMA Journal of Numerical Analysis; Journal of Computational and Applied Mathematics; Journal of Computational Dynamics; Journal of Computational Mathematics; Journal of Computational Physics; Journal of Scientific Computing; Journal of the London Mathematical Society; Mathematics and Computers in Simulation; Mathematics of Computation; Numerical Mathematics: Theory, Methods and Applications; Numerische Mathematik; SIAM Journal on Numerical Analysis; SIAM Journal on Scientific Computing

## Organisation of scientific events

- ◆ Initiator and co-organiser of the workshop Advances in Numerics for S(P)DEs (Chalmers, October 2024), [link](#)
- ◆ Co-organiser of the workshop on Stochastic Computation at FoCM23 (Paris, June 2023), [link](#)
- ◆ Initiator and co-organiser of the workshop “4th Workshop on Scientific Computing in Sweden” (Chalmers, October 2022), [link](#)
- ◆ Initiator and co-organiser of the JSPS AC seminar “Topics in computational methods for stochastic and deterministic differential equations” (Chalmers, October 2022), [link](#)
- ◆ Initiator and co-organiser of the workshop “Theory and Computational Methods for SPDEs” (BIRS-CMO, September 2022), [link](#)
- ◆ Initiator and co-organiser of the webpage “Seminars in Numerical Analysis, Sweden”, (Sweden, 2020–), [link](#)
- ◆ Organiser of the “CAM seminar”, (Chalmers University of Technology and University of Gothenburg, 2020–), [link](#)
- ◆ Initiator and co-organiser of the workshop “Theory and Computational Methods for SPDEs” (BIRS-CMO, September 2020, postponed due to COVID-19), [link](#)
- ◆ Co-organiser of the conference “Geometric Numerical Integration of Differential Equations” (AMSS, Chinese Academy of Sciences, Beijing, PR China, September 2019), [link](#).
- ◆ Co-organiser of the minisymposium “Numerical methods for stochastic (partial) differential equations” at SciCADE 2019 (Innsbruck, July 2019), [link](#)
- ◆ Co-organiser of the workshop “Numerical Methods for SPDE: 20 successful years and future challenges” (Mittag-Leffler Institute, 20 – 24 May 2019), [link](#)
- ◆ Co-organiser of the “Forum on numerical analysis of SPDE” (AMSS, Chinese Academy of Sciences, Beijing, PR China, October 2018), [link](#).
- ◆ Co-organiser of special sessions on stochastic partial differential equations at the 40th Conference on Stochastic Processes and their Applications SPA 2018 (Gothenburg, June 2018), [link](#)
- ◆ Organiser and lecturer for the “Mini-course on Stochastic Differential Equations” (Jaume I University, May 2018), [link](#)



- ◆ Co-organiser of the “Forum on numerical analysis for SDEs and SPDEs” (Chinese Academy of Sciences, November 2017), [link](#)
- ◆ Co-organiser of the minisymposium “Numerical methods for stochastic systems” at SciCADE 2017 (Bath, September 2017), [link](#)
- ◆ Initiator and co-organiser of the special session “SPDEs: From Theory to Simulation” at the meeting of the Catalan, Spanish, Swedish Math Societies (Umeå, June 2017), [link](#)
- ◆ Initiator and organiser of the “Mini-course on numerical methods for SDEs” given by Prof. M. Tretyakov (University of Umeå, September 2016), [link](#)
- ◆ Organiser and lecturer for the “Mini-course on Geometric Numerical Integration” (Fundação Getulio Vargas, February 2016), [link](#)
- ◆ Co-organiser of the minisymposium “Numerical methods for stochastic differential equations” at SciCADE 2015 (Potsdam, September 2015), [link](#)
- ◆ Co-organiser of the “BIT circus” (Umeå University, 26 – 27 August 2015), [link](#)
- ◆ PI and co-organiser of the workshop “Advances in numerical methods for SPDEs” (Mittag-Leffler Institute, 16 – 18 June 2015), [link](#)
- ◆ Initiator and organiser of the “Guest Lectures in Numerical Analysis and Applied Mathematics”, (Umeå University, 2014 – 2020), [link](#)
- ◆ Initiator and co-organiser of the workshop “Advances in numerical analysis and computational sciences” (Umeå University, 2013), [link](#)
- ◆ Initiator and co-organiser of the “Seminar für Analysis und Numerik” and of the “Perlen-Kolloquium” at the institute of mathematics (University of Basel, 2007–2012)
- ◆ Initiator and co-organiser of the “Mini-course on the numerical integration of stochastic differential equations” given by Prof. D. Higham (University of Basel, 2010)
- ◆ Co-organiser of the “Schweizer Numerik Kolloquium” (University of Basel, 2009)
- ◆ Organiser of a minisymposium at the conference in honour of E. Hairer’s 60th birthday (University of Geneva, 2009)

## Miscellaneous

- ◆ Nominated as Chalmers’s candidate for the Göran Gustafssons prize (2022)
- ◆ Chairman of the environment and sustainability group (department of mathematics and mathematical statistics, Umeå University, 01.11.2019–31.03.2020)
- ◆ Qualified Teacher at the Faculty of Science and Technology (Umeå University, 04.06.2019)
- ◆ Nominated as Umeå University’s candidate for the Göran Gustafssons prize (2017 and 2018)
- ◆ Research and leadership programme Step 2 (Umeå University, 09.2017–03.2018)
- ◆ Faculty’s “young” research leader (Umeå University, 09.2014–02.2015)
- ◆ Co-responsible for the homepage of the department of Mathematics and mathematical Statistics (Umeå University, 2014–2016)
- ◆ Co-responsible for the homepage of the institute of mathematics (University of Basel, 2010–2012)

## Hobbies and Interests

Cross-country skiing, cycling, running and swimming

## References

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