

Curriculum Vitae Torbjörn Lundh

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

https://sv.wikipedia.org/wiki/Torbj%C3%B6rn_Lundh

- **MSc** Engineering Physics, Uppsala, 1989
- **PhD** Mathematics (potential theory), *Kleinian groups and thin sets at the boundary*, Advisor: Matts Essén, Uppsala, 1996
- **Postdocs**
 - i) 1997 Cambridge, UK
 - ii) 1997-1999, SUNY, Stony Brook, NY
 - iii) 1999-2000, Institut Mittag-Leffler, Djursholm
- **Sabbatical**
Visiting professor at Vascular Surgery, Stanford, CA, August 2015 to June 2016.
- **Docent** 2004
- **Present position**
Full professor in Mathematical Biology (Biomatematik) October 2019
- **Earlier positions**
Lecturer, KTH, Stockholm, 1996.
Assistant professor, Chalmers University of Technology, 2000-2004.
Associate professor, Chalmers University of Technology, 2004-2010.
Professor without a chair (Biträdande professor) in Mathematics, Chalmers University of Technology, 2010-2019.
- **Supervision**
 - Jonatan Vasilis, Tekn. Dr, Oct 2010, *Harmonic measures*
 - Sofia Tapani, Tekn Dr, November 2011, *Stochastic modelling and analysis of early mouse development*.
 - Jacob Leander, Tekn. Lic, Sept 2014, *Mixed-effects modeling using stochastic differential equations*
 - Tim Cardilin, Tekn. Dr, June 2020, Combination therapy in oncology

Current supervision:

 - Ove Granstrand (Financial game theory)
 - Marcus Baaz (Synnergetic cancer treatment)

Current co-supervision:

 - Charlotte Alvord (Synnergetic environmental toxic for fish)
 - Jenny Larsson (Sea-shell-morphology (in Sheffield))
 - Johan Bondesson (Cardiovascular stent mechanics)
- **Postdoc host**
 - Dr. Jun Udagawa from Shimane University, Japan, 2007
- **Opponent**
 - Torbjörn Hellvik, Dynamical Systems of Interacting Units: Information Transport and Higher Order Structures, Trondheim, Norway, Jan. 13, 2006
 - Natalia Zabzina, Mathematical modelling approach to collective decision-making, Uppsala, Apr. 7, 2017

- **Prizes**
 - [SKAPA innovation price 2014 for the PressCise bandage](#)
 - "Most Innovative Product" for Lundatex® system at the Journal of Wound Care Awards, London, March 3, 2017
 - Best e-poster, Zinc based vs. Four Component compression, May 3, 2017
 - Best Product in Medical Textiles at the Future Textiles Awards, Frankfurt, May 12, 2017

- **Conference arranging**
 - [2nd Swedish conference on mathematical biology, 16-17 December, 2010](#)
 - [Aimday Image, 13 March, 2013](#)
 - [Pseudo Science – an innocent game or a dangerous parasite?, 25 April, 2013](#)
 - [9th European Conference on Mathematical and Theoretical Biology, 15-19 June 2014](#)
 - Almedal Session: Mathematics is essential for keeping Sweden's strong position as an innovation nation, 4th July, 2016
 - [Engineering Health – the legacy of William Chalmers, Nov. 8-9, 2017](#)
 - [Mathematical Biology, fall 2018, Institute Mittag-Leffler](#)
 - [AI for health and healthy AI, August 2019, University of Gothenburg](#)
 - [eSBM, Society for Mathematical Biology, Aug 2020, see also \[The Scientist follow up article\]\(#\) about the meeting.](#)

- **Other positions**
 - Vice chair for Gothenburg Center of Systems Biology, 2012-2014
 - Profile leader of Mathematical Biology in the Area of Advance Life science engineering, 2012-2015
 - Creator and organizer of [mathbio.se](#)
 - Vice-chair evaluator for [Research Executive Agency](#), Brussels
 - Member in the educational board at the Faculty of Science at Gothenburg University, "grundutbildningberedning" 2003-2006.
 - Member in the editorial group for the N! the Faculty of Science magazine at the University of Gothenburg. 2004-2009
 - Director of the [Mathematics Consultants](#) at the department. 2008-2011
 - Chairman of the [Swedish Committee on Education in Mathematics 2008-2011](#)
 - Chairman of the [Collegium](#) at Mathematical Sciences. 2009-2011
 - Chairman of the [Swedish National Committee for Mathematics](#) under [KVA](#), 2011-2015
 - Chairman of [Matts Esséns minnesfond](#). 2004-2014
 - Vice Chairman of [Chalmers' Faculty Board 2011-2015](#)
 - Program developer of the teacher training program at Chalmers: [Learning and Leadership](#)
 - [Member of the board of Chalmers Foundation, 2011-2015](#) (The fond gave 2015 a net profit of 156 MSEK)
 - Board member in Folkuniversitet Gothenburg
 - [Board member of European Society of Mathematical and Theoretical Biology](#)
 - [Main organizer of ECMTB 2014](#)
 - Inspector of Chalmers Student Union, 2014-2018
 - Member in [WASP's Graduate School Managements AI](#), 2017 -
 - Board member in [Smart Textiles](#), Borås, 2018 –
 - Vice Dean, Faculty of Science, University of Gothenburg, 2019 –
 - Member of the Internationalization board at the University of Gothenburg, 2019 –
 - Honorary member in Chalmers Student Union, Dec. 2019.

- **Referee accepted papers**
 - ORCID <https://orcid.org/0000-0001-7081-1384>
 - Google Scholar: <https://scholar.google.com/citations?hl=en&user=hYgvkugAAAAJ>

- Research.Chalmers.se: <https://research.chalmers.se/en/organization/?tab=publications&query=Torbj%u00f6rn+lundh>
- **Patents/patent applications**
 1. New vascular prosthesis, Lundh, T.; Mattsson, E. Swedish pat. no. SE 531 374 C2 (2009)
 2. Removable Stent and Method of Production, EP 2654629, WO2012084007, Lundh, T.; Mattsson, E. (2012).
 3. Device and method for treating ruptured aneurysms, US-21043007, US8758423, Lundh, T.; Mattsson, E. (2014).
 4. Elastic bandage and textile material for use in such an elastic bandage, WO 2015007335, US2016166437, Lundh, T.; Mattsson, E.; Vasilis, J., 2015
 5. A bandage securing device, SE 538588, WO2016153421, Lundh, T.; Vasilis, J.; Damm, J.
 6. A compression garment for provision of an adjustable pressure, WO2016116125, Lundh, T.; Vasilis, J.; Damm, J.
 7. Mechanisms for insertion of guide wires, A61M25/09041, The Board Of Trustees Of The Leland Stanford Junior University, Lundh, T; Aalami, O; Itoga, N, 2017
 8. A Kit And Therapeutic Pressure Assembly With Patches For Applying Pressure To A Limb Or Other Body Part, US 2020/0000622, Lundh, T.; Vasilis, J.; Damm, 2020.
- **Dissemination of Science articles**
 - Vetenskapligt förhållningssätt i samhällsfrågor, Torbjörn Lundh, Ann-Marie Pendrill, Fysikaktuellt. Vol. 2004 (1), p. 14-15, 2004
 - Naturlig geometri, Torbjörn Lundh, Popularisering av matematikk, Trondheim, 17-18 November 2003, I. Holden et al.. Vol. 2, p. 111-119, 2004
 - Kan matematiken hjälpa oss att förstå hur vi blev till? Torbjörn Lundh, Nämnaren. Vol. 4, p. 47-52, 2004
 - NTA-boxes from KVA, writing “A mathematician’s view-point” 2009.
 - Bengmark, S; Lundh, T; Cronhjort, M. et al. (2014). Skolan missar nya lärare med spetskompetens. NyTeknik, 27 augusti 2014. [Nr. 203106]
 - Lundh, T.; Bengmark, S. (2014). Politiker missar på nytt det centrala , Svenska Dagbladet, Opinion, Brännpunkt 4 april 2014. s. 6. [Nr. 197196]
 - Gerlee, Thorén, Lundh, ””Alla modeller är fel – några är användbara”, SvD, 2020-04-22
 - Gustafsson, Timpka, Lundh, et al, ”Se upp med komplexa coronamodeller – de kan överträffa verkligheten”, NyTeknik, 2020-04-24
- **Start up companies**
 - Mamillicon HB (an innovation company for a traffic warning system with several prices from VentureCup)
 - GraftCraft AB (developmental company for vascular stents and grafts)
 - y-Graft AB (daughter company to GraftCraft AB with a novel by-pass)
 - PressCise AB (innovation medtech company within the field of compression treatment)
- **Funding within the medtech field**
 - GothenburgBIO
 - Innovationskontor Väst
 - Almi
 - BIO-X
 - Smart Textiles
 - VINN-verifiering

- Skapa Utvecklingsstipendium (West Swedish region winner 2014)
- Curamus foundation
- **Own developed freely available computer programs**
 - Urdar – a digital ecology platform: <http://www.math.chalmers.se/~torbjrn/Urdar/urdar.html> with Philip Gerlee.
- **Presentations on conferences and invited seminars**
 - Luleå (Gerd Brandell), February 22, 1995.
 - Milano (Wolfgang Woess), March 22 1995.
 - KTH (Björn Gustafsson), March 29 1995.
 - Universidad Autonoma de Madrid (José Fernández), Sept. 1995.
 - Linköping (Lars-Inge Hedberg), March 15 1996.
 - Trondheim (Workshop on conformal geometry), May 1996.
 - Helsinki (Nordic mathematical meeting), Sept. 1996.
 - Heidelberg (3rd european conference on mathematics applied to biology and medicine), poster but no talk, October 1996.
 - Cambridge UK (Alan Beardon), January, February 1997.
 - Southampton (Graham Niblo), January 31.
 - Warwick (Caroline Series), February 3 1997.
 - Imperial College (Sanju Velani), February 21 1997.
 - Durham (John Parker), March 10 1997.
 - Uppsala (Conference in honour of Matts Essén), June 17 1997.
 - Stony Brook, three Analysis seminars (Irvin Kra et al), 1997-1999.
 - Stony Brook, two Ecology & Evolution seminars (Dennis Slice), 1998.
 - Stony Brook, Xenopus- and mice-lab meeting (Jerry Thomsen), 1998.
 - Knoxville, Tennessee, (The Barrett Memorial Lectures), June 8 1998.
 - Washington University, St. Louis (Al Baernstein), March, 1999.
 - Uppsala, Bio-mathematical seminar (Sten Kaijser) September, 1999.
 - Uppsala, Finance seminar (Johan Tysk) October 1999.
 - Institute Mittag Leffler, October 1999.
 - Uppsala, Stochastic seminar (Tom Britton), January 2000.
 - Stockholm Bioinformatic Center (Jens Lagergren), February 2000.
 - Umeå (Kaj Nyström), March 2000.
 - Uppsala, Systematic Biology (Leif Tibell), April 2000.
 - Helsingör (Bioinformatics meeting), poster, April 2000.
 - Göteborg (Workshop in Bioinformatics at Nya Varvet) May 9 2000.
 - KTH (Swedish Russian meeting), October 4 2000.
 - Graz, (Fractals in Graz), May 2001.
 - GU, Lunchföredrag, October 12 2001.
 - KTH (Björn Gustafsson), November 6 2001.
 - Göteborg, The Zoomorphology Seminar, November 8 2001.
 - Matsue, Shimane University (Hiraoki Aikawa), February 2002.
 - Dublin (Stephen Gardiner), December 10 2002.
 - Uppsala, Statistical seminar, (Sven-Eric Alm), January 2003.
 - Karlstad, Kollokvium, April 2003.
 - Göteborg, 2nd Nordic Summer School for Female PhD students in Mathematics, Aug. 2003.
 - Uppsala, The Linnaeus Centre for Bioinformatics (Vincent Moulton), October 20 2003.
 - Trondheim, (Ingvill Holden) conference on popularization of mathematics, Nov. 2003.

Malmö, Matematikbiennalen (one of the opening speakers), Jan. 2004.
Linköping, (Anders Björn) April 2004.
Matsue, Japan, International Workshop on Potential Theory (invited speaker) August 24, 2004.
Matsue, Japan, Open session in embryogenesis, in August 26 2004.
The vascular group at Sahlgrenska, Göteborg, September 24, 2004.
Uppsala, DNA-seminar, November 1, 2004.
Stockholm, Pluricomplex seminar, November 2, 2004.
Statistiska seminariet Göteborg, "Which ball is the roundest?", 14 november, 2004
Zooekologiska seminariet, Göteborg, "War of attrition", 22 februari, 2005.
Real evolution in artificial life, Svenska Mässan, Dinosaur exhibition, June 6 2005.
Minisymposium on dynamical systems. Trondheim, Norway, Jan. 12 2006
The Gothenburg Centre for Theoretical Biology och Ekologisk Zoologi,, 17 October, 2006
Multiphysics meeting, Copenhagen, Nov.1-2, 2006
Analytic morphogenesis, Dundee, Nov. 7
Morphological computations, Venice, 26-30 mars, 2007
PDE & Mathematical Biology, KTH, Stockholm, July 9-11, 2007
Björn Gustafsson meeting, KTH, Oct. 15-17, 2007
Morphogenesis meeting, Gothenburg, 14-15 nov, 2007
Sonja Kovalevsky-dagarna, Nov. 16-17, 2007
Hokkaido University, Sapporo Jan. 24, 2007
Tokyo University, Jan. 22, 2007
Shimane University, Jan. 15, 2007
Symposium for research on learning and teaching in mathematics, Gothenburg, 10th March, 2008.
Science for a better life, ESOF, Barcelona, 17-18 July, 2008.
ALife XI, Southampton, UK, 5 augusti, 2008
Random models in science, engineering and medicine, Smögen, Aug.18-22, 2008.
Sonja Kovalevsky-dagarna, Uppsala, Nov. 7-8, 2008.
Spetsutbildningar i matematik, Norra Latin, Nov. 13, 2008.
International Symposium, Mathematical Analysis of Developmental Phenomena, ShimaneUniversity, Matsue, Japan, Nov. 23, 2008
En civiliserad matematisk kväll i humanismens tecken, Science festival in Gbg, 6 May, 2009
Toward the elucidation of the developmental origins of diseases, Izumo, Japan, 30/10, 2009
First Swedish meeting on Theory and Mathematics in Biology and Medicine, 17/12, 2009
Matematikbiennalen, Stockholm, 28 January, 2010
Niels Bohr Institutet, Coopenhagen, Danmark, 31 March, 2010
Mathematical Models for Biological Systems, Università di Trento,10/2, 2011
Swedish-Korean biotechmeeting, The Royal Swedish Academy of Sciences, 14 April, 2011
European Conference on Mathematical and Theoretical Biology, Krakow, 29 June, 2011
European Conference on Artificial Life, Paris, 8-12 August, 2011
3rd Swedish meeting on Mathematics in Biology, Umeå, 14–16 December, 2011
Matematikbiennalen, Umeå universitet, 26 January, 2012
CeMEB-meeting, Tjärnö, 10 October, 2012
4th Swedish meeting on Mathematics in Biology, 10th December, 2012
Image Analysis SSBA 2013, Gothenburg, 14 mars, 2013
Chalmers meets track and field, 24 April 2013
Park Annual, Gothenburg, 12 September, 2013
Integrated Mathematical Oncology, Moffitt Cancer Center, Tampa, FL, 17 January, 2014

From the clinic to pde and back, ICERM, Brown University, RI, 20 January 2014
Matematikbiennalen i Umeå, 7 February 2014
Life Science Monday Seminary, 10 February, 2014
Medtech & Biomaterials, A well-defined compression bandage pressure is a far stretch of the truth today, but tomorrow. PressCise can give you a precise pressure, Gothenburg, 4 March 2014
Sport & Smarta Textilier, Chalmers, 27 mars 2014 ECMTB, Minisymposia: Game Theory in Ecology and Evolution, Cross-feeding as a game, Gothenburg, 16 June
Moderator Park Annual, 11 September, Sahlgrenska Science Park, 2014
Svenska Medicinteknikdagarna, Knitted mathematical solutions to three vascular surgery problems, Gothenburg, 15 October 2014
MedtechWest seminar, Three cardiovascular problems solved by mathematics and realized by knitting, Sahlgrenska, Gothenburg, 26 February, 2015
Ja, ja men vad är då liv egentligen? Science festival in Gothenburg, 16 April 2015
The ecology of innovation, SACF Korea, Hanyang University, Seoul, Sydkorea, 21 April 2015
A removable stent, CVI annual retreat, Stanford, USA, 27 October 2015
Real Cardiovascular Problems, Resolved by Mathematics and Realized by Knitting, Biomathematic Seminar, UCLA, 10 December 2015.
Simulations and models (in that order) of evolving cross-feeding ecologies, Ecology lunch seminar, Stanford April 12th, 2016.
Four cardiovascular problems approached by mathematics, Applied Math. Seminar, Stanford, 6th May, 2016
Competition-Collaboration among Cancer Cell strains, Integrated Mathematical Oncology, Moffitt Cancer Center, Tampa, FL, May 5, 2016
Real cardiovascular problems, resolved by mathematics and realized by knitting in Nottingham, European Conference for Mathematical and Theoretical Biology, July 14th 2016
An innovative compression system providing low, sustained resting pressure and high, efficient working pressure, University of Ferrara, Italy, Sept. 25th, 2016
Advances in the Management of Chronic Venous Disorders and Update of Guidelines, Increasing working compression pressure and maintaining low resting pressure, Larnaca, Cyprus, March 10, 2017
Charing X, London, two invited talks, April 25th and 27th 2017
Zinc based vs. Four Component compression, EWMA, Amsterdam, prize winning e-poster presentation, May 4, 2017
International Compression Club, Amsterdam, May 5, 2017
dCode-summer-school, Kristineberg, Aug. 15, 2017
Mathematics models applied to bandaging, VI International Inter-University Meeting in Phlebology, Lymphology and Aesthetics, Albarella Island, Italy, Sept. 7, 2017
Bokmässan, Kunskapsstafett, 29 September, 2017
Institute of Mathematics Polish Academy of Sciences , Dec 9th, 2017
Matematikbiennalen, Karlstad, 25 and 26 Jan. 2018.
Karlstad Applied Analysis Seminar (KAAS), June 13, 2018
ECMTB, Lisbon, July 25, 2018
EWMA, Gothenburg, June 6th, 7th, 2019
dCod summer-school, Runde, Norge, June, 2019
EVF, Zurich, June, 2019
Systems Biology Lunch Seminar, Harvard, Sept 28, 2019
AI-presentation, Tubingen, Oct 14, 2019

WASP-AI-workshop, RWTH, Aachen, Oct. 16, 2019

First Nordic Biomathematics Days, Helsinki, Oct. 22, 2019

The 2nd CIAS Biomathematics Workshop, Palermo, Oct. 24, 2019

Soup and Science, Chalmerska huset, Feb 28, 2020

eSMB-talk, Aug. 20, 2020
