Jan Arne Telle
Curriculum Vitae

Department of Informatics
University of Bergen
5020 Bergen, Norway
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Personal Data

- Born May 15, 1962 in Bærum, Norway

Education

- University of Oregon, Eugene, Oregon, 1988-94
  Doctor of Philosophy, Computer Science (June 1994)

- California State University, Long Beach, California, 1983-87
  Bachelor of Science, Computer Science and Engineering

Academic Employment

- University of Bergen, Department of Informatics
  2000-, Professor
  1998-99, Associate Professor (1.amanuensis)
  1994-97, Temporary Assistant Professor or Postdoctoral Researcher

- Université Paris 7, LIAFA, Group for Algorithms and Combinatorics
  Summer 1999, Invited Professor

- Cornell University, Department of Computer Science
  1995-96, Instructor

- University of Oregon, Department of Computer and Information Sciences
  1992-94, Research Assistant - NSF grant CCR9213439
  1989-91, Research Assistant - NSF grant MIP9108528
  1988-89, 1991-92 and Summer 93, Teaching Assistant and Instructor

Professional Employment

- Central Bureau of Statistics of Norway - SSB
  1987-88, Lead Programmer at Group for Computer-based Research

Research Grants

- Machine Teaching for Explainable AI, NFR Research Council of Norway, 2022-26, project leader

- Improving polynomial-time algorithms, Sather Grant UC Berkeley, 2013-14, joint project leader with Christos Papadimitriou

- PARALGO - Parameterized Algorithms, Research Council of Norway, NFR-FRINAT 185824/V30, 2008-2013, project leader

- PARCOM - Parameterized Complexity and Graph Algorithms, Research Council of Norway, NFR-FRIPRO, 2002-2005, project leader

- General Support for the Algorithms Research Group at UiB, Research Council of Norway, NFR-FRIPRO, 2004, project leader

- Exploiting Structure to Cope with Hard Problems, Research Council of Norway, NFR FRITEK, 2010-2015, one of three PIs

- Minimal separators and triangulations in graphs, Research Council of Norway, NFR FRINAT 2005-2009, one of two PIs

- Spectrum management in static and dynamic networks, Research Council of Norway, NFR IKT-2010, 2004-2007, one of four PIs.

- Project leader of two NFR Aurora France-Norway Collaboration Research Projects

- Design, Analysis and Implementation of Algorithms for Tree-like Graphs, Research Council of Norway, NFR 1995-97, project leader, personal postdoctoral grant

- Personal Doctoral Studies Research Fellowship from NTNF (Norwegian Technical and Natural Sciences Foundation), 1990-1992, personal PhD grant

Academic Service

- Steering Committees/Prize Committees
  Committee member (1 of 3) WG Test of Time Award (International Workshop on Graph-Theoretic Concepts in Computer Science) 2023-26
  Steering committee member (1 of 9) IPEC (International Symposium on Parameterized and Exact Computation) 2018-2021
  Committee member (1 of 3) EATCS (European Association of Theoretical Computer Science) Nerode Prize 2013-2016
  Chair EATCS Nerode Prize Committee 2015-16
  Advisory Board member (1 of 20) DIMATIA (Center for Discrete Mathematics, Theoretical Computer Science and Applications) since 2004
  Steering committee member (1 of 5) SWAT (Scandinavian Symposium and Workshops on Algorithm Theory) since 2000

- Various commissions of trust
  Member of board (fakultetsstyret) at Faculty of Mathematics and Natural Sciences, University of Bergen, 2017-2021

Chair of board Norwegian Olympiad in Informatics (Norsk informatikkolympiade - NIO), 2015-2020

Member of board Norwegian Olympiad in Informatics (Norsk informatikkolympiade - NIO), 2015-2024

Chair of Research Committee for Department of Informatics, University of Bergen, 2012-2016

National committee for promotion to Professor in Informatics in Norway, member (1 of 4) 2006-2010

Chair of committee for Alan Turing centennial celebration at UiB, 2012

- Program Committees (typically 15-20 members in Algorithm conferences)

  WG 2024 (50th International Workshop on Graph Theoretical Concepts in Computer Science)

  IPEC 2019, **chair** (14th International Symposium on Parameterized and Exact Computation)

  STACS 2019 (36th International Symposium on Theoretical Aspects of Computer Science)

  EUROCOMB 2017 (European Conference on Combinatorics, Graph Theory and Applications)

  WG 2017 (43rd International Workshop on Graph Theoretical Concepts in Computer Science)

  IPEC 2016 (11th International Symposium on Parameterized and Exact Computation)

  EUROCOMB 2015 (European Conference on Combinatorics, Graph Theory and Applications)

  IPEC 2014 (9th International Symposium on Parameterized and Exact Computation)

  EUROCOMB 2013 (European Conference on Combinatorics, Graph Theory and Applications)

  ISAAC 2013 (23rd International Symposium on Algorithm and Computation)

  WADS 2011 (12th Biennial Workshop on Algorithms and Data Structures (now Symposium))

  FCT 2011, **chair** (18th Biennial International Symposium on Fundamentals of Computation Theory)

  IWOCA 2009 (20th International Workshop on Combinatorial Algorithms)

  WG 2008 (34th International Workshop on Graph Theoretical Concepts in Computer Science)

  ICALP 2007 (34th International Colloquium on Automata, Languages and Programming)

  IWPEC 2006 (2nd International Workshop on Parameterized and Exact Computation)

  AICCSA 2006 (4th ACS/IEEE International Conference on Computer Systems and Applications)

  FCT 2005 (15th Symposium on Fundamentals of Computation Theory)

  IWPEC 2004 (1st International Workshop on Parameterized and Exact Computation)

  SWAT 2004 (9th Biennial Scandinavian Workshop on Algorithm Theory)

  MFCS 2004 (29th International Symposium on Mathematical Foundations of Computer Science)

  SWAT 2000 (7th Biennial Scandinavian Workshop on Algorithm Theory)

- Organizing Committees

  Chair of EUROCOMB 2015, August 31-September 4 2015, Bergen, Norway

  Chair of ATCAGC 2015, January 24-30, Jardim do Mar, Portugal

  Chair of SWAT 2010, June 21-23 2010, Bergen, Norway

Chair of ATCAGC 2009, February 19-21, Finse, Norway
WG 2006, June 22-24 2006, Sotra, Norway
ALGO 2004, September 14-17 2004, Bergen, Norway
Chair of SWAT 2000, July 5-7 2000, Bergen, Norway

- <u>Doctoral and Habilitation Committees</u>
Utrecht University, Netherlands, June 2019
Eindhoven University, Netherlands, June 2019
Charles University, Prague, Czech Republic, January 2011
LIRMM, Montpellier, France, July 2006
Charles University, Prague, Czech Republic, October 2000
University of Lund, Sweden, September 1998
University of Bergen, various committees

Teaching and Advising Experience

- <u>Instructor</u>
Computer programming for Science, INF109 Fall 2017, Spring 2018
Theory of Social Networks, INFO207 Fall 2012 (developed new course), 2013, 14, 18, 20, 24
Algorithm Engineering, INF237 Spring 2009, 10, 12, 19, 20, 22, 23
Discrete Structures, IM005 & MNF130 U.Bergen Spring 2003 (developed new course), 2004, 07, 11
Advanced Algorithms, I238 & INF334 U.Bergen Fall 2002, 03, 19, 20, 21
Graph Homomorphisms, INF339 U.Bergen Spring 2006
Social Networks, INF339 U.Bergen Fall 2010
Graph Width Parameters, INF339 U.Bergen Spring 2015
Machine Teaching for XAI, INF339 U.Bergen Fall 2022
Causality for LLMs, INF339 U.Bergen Spring 25
Algorithms, Data Structures and Programming, I120 U.Bergen Fall 2000, 01
Models of Computation, I210 U.Bergen Fall 1999 (developed new course)
Complexity Theory, I235 U.Bergen Spring 98, 99, 01, 02, 08, 13, 14, 16, 25
Algorithms, I234 U.Bergen Fall 97, 98, 05, 06, 07, 14, 15 and CS315 U.Oregon 93
Intro. to Computer Programming, CS100 Cornell U.(co-instr.) Spring 96
Files and Databases, FD207 HiB - Bergen Engineering College Spring 95

- <u>PhD supervision</u>
Brigt Håvardstun (PhD ongoing)

Svein Høgemo (PhD 2/2025) Mapping Graphs to Trees

Lars Jaffke (PhD 8/2020 - main supervisor with Mike Fellows) Bounded width graph classes in parameterized algorithms

Sigve Hortemo Sæther (PhD 9/2015 - main supervisor) Choice of parameter for DP-based FPT algorithms: four case studies

Martin Vatshelle (PhD 9/2012 - main supervisor) New width parameters of graphs

Christian Sloper (PhD 1/2006 - main supervisor) Techniques in parameterized algorithm design

Petter Kristiansen (PhD 2/2003 - main supervisor) New results on the domination chain, graph homomorphisms, alliances and self-stabilizing algorithms

Co-supervisor for several PhD candidates

- Cand.Scient./Master supervision:

  Brigt Håvardstun, Machine Teaching for Explainable AI: Proof of Concept
  Sondre Nilsen, Analyzing Solidity Smart Contracts
  Petter Daae, Properties of locally checkable vertex partitioning problems in digraphs
  Håvard Notland, Efficient Scooter Collection
  Svein Høgemo, Linear MIM-width of trees
  Joakim Alme Nordstrand, Exploring graph parameters similar to tree-width and path-width
  Christian Egeland, Algorithms for linearly ordered boolean formulas
  Johan Rusvik, Localizing cell towers from crowdsourced measurements
  Erlend Eindride Fasmer, Community detection in social networks
  Magnar Myrtveit, Scaling the scales - a suggested improvement to IBM's intelligent recommendation algorithm
  Eivind Magnus Hvidevold, Heuristics for boolean-width decomposition of graphs
  Robert Sasak, Comparing 17 graph parameters
  Martin Vatshelle, Naturlige nettverk
  Elisabeth Moldeklev, Generating tree-like graphs
  Thomas Edvinsen, Sequence alignment
  Øyvind Neuman, Drawing a portion of the internet world wide web
  Gunnar Horneland, Implementation of graph algorithms in LEDA
  Kjell Wilhelm Kongsvik, Testing and evaluating PRO - the parallel resource optimal computation model
  Christian Sloper, Parameterized complexity and method of test sets
  Ole Aleksander Mæhle, The treewidth of Java programs
  Knut Erstad, L-systems, twining plants, Lisp
  Sidsel Horvei, Søkemotorer og duplikat-detektering
  Bjørn Hiim, Implementing and testing of algorithms for tree-like graphs

Awards

- Best Paper Award. 14th International Symposium on Graph Drawing, GD 2006, Universitet Karlsruhe, Germany, September 18-20th, 2006. On a paper co-authored with David Wood.

Bibliography of Publications

Quality: I regularly publish in international conferences and journals of high quality. I have in the last 10 years 14 publications in journals of Q1 ranking (i.e. in the top 25 % of the journals in the field according to a ranking made by SCIMAGOJR) and about 20 publications in Q2 journals including LNCS.
Citations: As of 2020 Google Scholar lists over 3000 citations to my papers, with an h-index of 32. In my field the ordering of authors is usually alphabetical.
Please see my homepage at jatelle.github.io, or Google Scholar or dblp for a list of my publications.