

Curriculum Vitae (Compact Version)

Jan van Leeuwen

Professor	Born:	December 17, 1946
Dept of Information and Computing Sci. Utrecht University	Citizenship:	The Netherlands
	Homepage:	www.cs.uu.nl/staff/jan.html/

Education

1969	Doctoral Exam, cum laude, Utrecht University	Mathematics
1972	Ph.D, Utrecht University	Mathematics

Positions

2011- Professor Emeritus, Dept of Information and Computing Sciences, Faculty of Sciences, Utrecht University.

2006-08 Chairman, Graduate School of Natural Sciences, Faculty of Science, Utrecht.

2005-08 Vice-dean for Natural Sciences, Faculty of Sciences, Utrecht University.

2005-07 Head, Dept of Mathematics (until 2006) and Dept of Information and Computing Science (until 2007), Utrecht University.

2003-05 Dean, Faculty of Mathematics and Computer Science, Utrecht University.

1994-99 Dean, Faculty of Mathematics and Computer Science, Utrecht University.

1991-94 Head, Dept of Computer Science, Utrecht University.

1987-91 Associate Dean for Computer Science, Faculty of Math and CS, Utrecht Univ.

1977-83 Head, Dept of Computer Science, Utrecht University.

1981-11 Professor, Dept of Computer Science, Utrecht University.

1977-81 Associate Professor (Lector), Computer Science Dept, Utrecht University.

1976-77 Associate Professor, CS Dept, Pennsylvania State University.

1975-76 Assistant Professor, Computer Science Dept, SUNY Buffalo.

1974-75 Scientific staff member, Mathematics Dept, Utrecht University and at the Mathematical Centre (now: CWI), Amsterdam.

1973-74 Assistant Professor, Computer Science Dept, SUNY Buffalo.

1972-73 Post-doctorate Research Fellow, CS Dept, UC Berkeley.

Honors

2019 External member, *Karel Capek Cntr for Values in Science and Technology*, Prague.

2014 *ACM Distinguished Service Award 2013*

2013 *R.R. Hawkins Award*, for S. Barry Cooper and J. van Leeuwen (Eds), *Alan Turing: His Work and Impact*, Elsevier, 2013.

2013 *PROSE Award for Excellence in Physical Sciences & Mathematics*, for S. Barry Cooper and J. van Leeuwen (Eds), *Alan Turing: His Work and Impact*, Elsevier, 2013.

2009-10 *Distinguished Lorentz Fellow*, Lorentz Center (Leiden)/ NIAS (Amsterdam).

2008 Honorary Doctorate (*Dr.rer.nat. h.c.*), RWTH University, Aachen (Germany).

2006 Elected member of the *Academia Europaea*.

2003 Dies speaker, *Dies Natalis 2003*, Utrecht University.

1999 *Bolzano Honorary Medal*, Academy of Sciences of the Czech Republic, Prague.

1996 *Great Golden Medal*, Comenius University, Bratislava.

1992 Elected member of the *Royal Netherlands Society of Sciences and Humanities*.

Advising (selection)

- 2015-18 Chair, Scientific Advisory Council, NETWORKS Programme (UvA, TUE, UL, CWI), NWO Gravitation project.
- 2014-17 Member/chair, *advisory Council for Informatics*, Lorentz Center, Leiden.
- 2012-17 Member, Advisory Board, School of Science, Aalto University, Helsinki (F).
- 2012 Member *JACM Task Force* on ‘Revamping J.ACM’.
- 2012 Member, Turing Centenary Advisory Committee, Computability in Europe 2012, Turing Centenary Conference (Cambridge, 2012).
- 2008-14 Member, Foresight Panel, IT University, Copenhagen (DK).
- 2005-10 Member, Advisory Council ICTRegie, National Directorate for ICT-Research and -Innovation, The Hague.
- 2002- Member/chair (a.i), board of the ‘Institute for Programming Research and Algorithmics’ (IPA), inter-university research school, the Netherlands.
- 2000-14 Member Advisory Council (‘Beirat’), Fakultät für Informatik, Technische Universität München.
- 1998-06 Member/chairman (2002-06), Program Board for Computer Science, Lorentz Center, Leiden University.
- 1998-04 Chairman Advisory Council, Centre for Mathematics and Computer Science (CWI), Amsterdam.
- 1998- Member scientific advisory board of the BRICS International Ph.D. School.
- 1998-05 Member Scientific Committee for “Informatica en Kennistechnologie”, Fonds voor Wetenschappelijk Onderzoek (FWO), Vlaanderen.
- 1993-98 Member International Panel of Consultants, BRICS Research Center, Aarhus (DK).
- 1985-90 Member Advisory Council (TWAR), ‘Stimulerings Projectteam Informaticaonderzoek’ (SPIN), the Netherlands.

Professional duties (selection)

- 2009-13 Member, *ACM Europe Council*.
- 2005-13 Vice-president, *Informatics Europe*
- 2002-08 Vice-president, European Association for Theoretical Computer Science (EATCS, council member 1979-1988, 1997-2002 and 2008-2012)
- 2000-03 Advisor, Philips Research Laboratories, New Media Systems/Media Interaction Group.
- 1998-10 Board member, Schuurman Schimmel - van Outeren Foundation.
- 1996 Member, Foresight Committee for Informatics Research in Holland.
-
- 2015-19 Member/convenor, *ESA Test-of-Time Award Committee*.
- 2012 Member, jury ‘Netherlands Prize for ICT Research’, KHMW, Haarlem.
- 2002-05 Member/coordinator, ‘EATCS Distinguished Achievements Award’, EATCS.

Academic duties (selection)

- 2002-11 Program leader, MSc programme in ‘Algorithmic Systems’ (later: ‘Computing Science’), Utrecht Univ.
- 2002- Member advisory council (‘Raad van Advies’), Faculty of Arts, Media and Technology, Hogeschool voor de Kunsten, Utrecht/Hilversum.
- 2000-03 Member, committee of appeals (commissie van beroep), College voor Promoties,

- Utrecht University.
- 2000-02 Member/vice-chair, University Committee for the Introduction of the General Bachelor/Master Structure, Utrecht Univ.
- 1997-03 Chairman, Committee for the Exams, Dept of Computer Science (later: of Information and Computing Sciences), Utrecht University.
- 1997-98 Member, committee for the design of the ‘Basic Qualification for University Teaching’ (BKO) and the ‘Senior Qualification for University Teaching’ (SKO).
- 1997-01 Member/coordinator/member steering committee of the Informatics and Management-variant of the Computer Science Curriculum Utrecht University.
- 1996-02 Chairman Wetenschapscommissie, Research School IPA.
- 1994-97 Member Board of Deans, Utrecht University.
- 1984-89 Member Computing Centre and Planning Committee (Rekencentrumcommissie), Utrecht.
- 1981-94 Member/chairman (1987-1990), Board of the Working Community for Theoretical Computer Science (WTI), the Netherlands.
- 1983-92 Chairman, Committee for the Exams, Dept of Computer Science (later: of Information and Computing Sciences), Utrecht University.
- 1981-90 Member Computer Science Research Council (SION), the Netherlands.

Review Committees (selection)

- 2008 Member, Assessment Panel SICSA: Scottish Informatics and Computer Science Alliance, Scottish Funding Council, Edinburgh.
- 2008 Member, International Review Committee, Department of Computer Science, Technion, Haifa, Israel.
- 2003-04 Member/coordinator, evaluation panel of Theme 1B: Networks and Telecommunication, INRIA, France.
- 2001-02 Member Visiting Committee for Computer Science Curricula at Flemish Universities, Vlaamse Interuniversitaire Raad, Brussels.

Editorial Boards

- 1981-91 Consulting Editor, *International Computer Science Series*, Addison-Wesley Publishing Company (Europe), Wokingham/London (UK).
- 1982-85 Member, Editorial Board *SIAM Journal on Computing*.
- 1982-87 Member, Editorial Board *Information and Control*.
- 1985-91 Advisor, European Publishing Program in Computer Science, Addison-Wesley Publishing Company, Amsterdam.
- 1990-95 Member, Editorial Board *Theoretical Computer Science* (TCS).
- 1994-04 Series Editor, *Lecture Notes in Computer Science*, Springer-Verlag, Heidelberg.
- 2000-04 Chairman, Editorial Council (‘redactieraad’), *Ublad* (Utrecht University Newspaper).

Project Coordinatorships (selection)

- 1989-92 ALCOM (Algorithms and Complexity), Esprit Basic Research Action 3075, 12 European partners, project coordinator.
- 1991-96 ALADDIN (Algorithmic Aspects of Parallel and Distributed Computing), NWO/NFI (“National Facility for Informatics”), project co-leader.
- 1992-95 ALTEC (Algorithms for Future Technologies), EC Cooperative Action IC 1000, 7 W- and C-European partners, project coordinator.

- 1992-95 ALCOM II (Algorithms and Complexity II), Esprit Basic Research Action 7141, 13 European partners, site coordinator.
- 1996-99 ALCOM IT (Algorithms and Complexity in Information Technology), Esprit Long Term Research Action 20244, 13 European partners, site coordinator.
- 2000-03 ALCOM FT (Algorithms and Complexity in Future Technologies), FP5 - Future and Emerging Technologies Project (FET), 11 European partners, site coordinator.
- 2004-09 BRICKS (Basic Research in Informatics for Creating the Knowledge Society) Bsik-ICT Project, 6 partners, the Netherlands, subproject coordinator.

Program Committees (Selection)

See the listing at <https://webpace.science.uu.nl/~leeuw112/confs.pdf> for a complete overview.

- Steering committee member of: WG (1985-07), WDAG (1989-93), ESA (1993-96), IPPS/SPDP (1996-99), IPDPS (1999-2004), European Computer Scierer Summit (ECSS, 2006-12), ALGOSENSORS (2006-13), SOFSEM (2007 - present).
- Organizing chair/co-chair of: 3rd Advanced Course on Foundations of CS (1978), ICALP'80, 4th Advanced Course on Foundations of CS (1982), WDAG'87, WG'88, WG'93, ESA'94, Philosophy of the Information and Computing Sciences (2010, Lorentz Center), Computing in Secondary Education (2014, Lorentz Center).
- Program chair/co-chair of: ICALP'80, WDAG'87, WG'88, CSN'88, WDAG'90, PARLE'91, CSN'91, IFIP'92 (Track: Algorithms and Efficient Computation), ESA'94, IFIP-TCS'2000, ICALP'01 (Track A), ECSS'06, SOFSEM'07, ECSS'08, SOFSEM'10, SOFSEM'18.
- Program committee member of more than 120 international workshops and conferences in computer science, since 1978, most recently of e.g.: SOFSEM'10, WG'10, ECAP'10, ECSS'10, CiE'11, IACAP'11, ECSS'11, CiE'12, MFCS'12, 6th AISB Symposium of Computing and Philosophy (2013), MFCS'15, ESA'18, LATA'20, LATA'21.
- Test-of-Time Award Committee: ESA (2015-18).

Books (Edited, selection)

See the listing at <https://webpace.science.uu.nl/~leeuw112/books.pdf> for a complete overview.

- *Handbook of Theoretical Computer Science*, Vol A: *Algorithms and Complexity* (1004 pages), Elsevier Science Publ/MIT Press, 1990 (translated into Japanese by Maruzen, 1994.)
- *Handbook of Theoretical Computer Science*, Vol B: *Formal Models and Semantics* (1280 pages), Elsevier Science Publ/MIT Press, 1990 (translated into Japanese by Maruzen, 1994.)
- *Computer Science Today*, Lecture Notes in Computer Science Vol 1000, special anniversary volume), Springer-Verlag, 1995 (641 pages).
- *Alan Turing: His Work and Impact* (with S. Barry Cooper), Elsevier, 2013.

Proceedings (Edited and co-edited)

See the listing at <https://webpace.science.uu.nl/~leeuw112/books.pdf> for a complete overview.

- *Lecture Notes in Computer Science* (Springer): Volumes 85 (ICALP'85), 312 (WDAG'87), 344 (WG'88), 486 (WDAG'91), 505/506 (PARLE'91), 790 (WG'93), 855 (ESA'94), 1000, 1872 (IFIP TCS 2000), 2076 (ICALP'2001), 4362 (SOFSEM'2007), 5901 (SOFSEM 2010), and 10706 (SOFSEM'2018).

Articles in journals and peer-reviewed conferences

More than 150, on the algorithms, theories and philosophy of computer science. See the listing at <https://webpace.science.uu.nl/~leeuw112/publications.pdf> for a complete overview.

- *Current research interests*: design and analysis of algorithms, computational complexity theory, non-uniform complexity theory, formal methods, graph-theoretic modelling, intelligent algorithms, non-classical computing, parallel and distributed algorithms, philosophy of computer science, theoretical computer science.

Recent publications (selection)

- “Interactive Computation in Embedded Systems” (with J. Wiedermann), Chapter in: D. Goldin, S. Smolka and P. Wegner, *Interactive Computation: the New Paradigm*, Springer-Verlag, 2005 (to appear).
- “Research evaluation for computer science” (with B. Meyer, Chr. Choppy and J. Staunstrup), Viewpoint article, C.ACM 52:4 (2009) 31-34 .
- “Structure of Polynomial-Time Approximation” (with E.J. van Leeuwen), *Theory of Comput Systems* 50:4 (2012) 641-674.
- “Integer representation of convex polygon intersection graphs” (with T. Müller and E.J. van Leeuwen), *SIAM J. Discr Mathematics* 27:1 (2013) 205-231
- “Pure Nash equilibria in graphical games and treewidth” (with A. Thomas), *Algorithmica* 71:3 (2015) 581-604.
- “What is computation: an epistemic approach” (with J. Wiedermann), in: G.F. Italiano et al. (Eds.), *SOFSEM 2015: Theory and Practice on Current Trends in Computer Science*, Lecture Notes in Computer Science Vol 8939, Springer-Verlag, Berlin, 2015, pp 1-13.
- “Shortcutting directed and undirected networks with a degree constraint” (with R.B. Tan and E.J. van Leeuwen), *Discrete Applied Mathematics* 220 (2017) 911-117.
- “Turing machines with one-sided advice and acceptance of the co-RE languages” (with J. Wiedermann), *Fundamenta Informaticae* 153:4 (2017) 347-366.
- “Question answering by humans and machines: a complexity-theoretic view” (with J. Wiedermann), in: G. Ausiello et al. (Eds), *In Memory of Maurice Nivat, a Founding Father of Theoretical Computer Science - Part I*, Special issue, *Theoretical Computer Science* 777 (2019) 464-473.
- “Finite state machines with feedback: an architecture supporting minimal machine consciousness” (with J. Wiedermann), in: F. Manea, B. Martin, D. Paulusma, G. Primiero (Eds), *Computing with Foresight and Industry, 15th Conference on Computability in Europe, CiE 2019*, Proceedings, Lecture Notes in Computer Science Vol 11558, Springer-Verlag, 2019, pp. 286-297.

Ph.D. Theses supervised and co-supervised (with year of completion)

Total: 40, see the listing at <https://webpace.science.uu.nl/~leeuw112/phdtheses.pdf> for more details.

1980 (with A. Ollongren, at RU Leiden) Th.P. van der Weide

1982 M. Veldhorst

1983 M.H. Overmars

1984 A.P.W. Böhm

1986 H.L. Bodlaender

1987 H.A.G. Wijshoff
 1987 (with J.M. van Winter) L. Breure
 1987 (with W.G. Klooster) G.J. van der Steen
 1989 (with W.P. de Roever) R.T. Gerth
 1989 G. Tel
 1991 A.A.Schoone
 1991 E.M. Bakker
 1991 (with M.H. Overmars) J.A. La Poutré
 1992 (with M. Veldhorst) J.F. Sibeyn
 1992 R. Hoofman
 1993 (with H.L. Bodlaender) A.J.J. Kloks
 1993 (with H.L. Bodlaender) G. Kant
 1993 (with J.N. Kok) P.M.W. Knijnenburg
 1994 (with D. van Dalen and C. Witteveen) C.M. Jonker
 1994 P.J.M. van Haaften
 1995 (with L.C. van der Gaag) R.R. Bouckaert
 1996 (with D.K. Hammer) D. Alstein
 1996 (with Y. Chiaramella) T.W.C. Huibers
 1997 (with H.L. Bodlaender) B.L.E. de Fluiter
 1998 (with M. Veldhorst) J.H. Verriet
 1999 (with J.F. Groote and H. van Maaren, at TU Eindhoven) J.P. Warners
 2000 (with K.I. Aardal and G. Kant) A.M. Verweij
 2000 (with W-P. de Roever and F. de Boer) U. Hannemann
 2003 (with L.C. van der Gaag and D. Thierens) P.A.N. Bosman
 2004 (with E.M.J. Aarts and J. Korst, at TU Eindhoven) W.P.A.J. Michiels
 2004 (with E.M.J. Aarts and J. Verriet, at TU Eindhoven) I.C.M. Flinsenberg
 2005 (with H.L. Bodlaender) Th. Wolle
 2006 (with J. Wiedermann) P.R.A. Verbaan
 2006 (with J.A. Hoogeveen) P.M. Lennartz
 2008 (with J.M. van den Akker and J.A. Hoogeveen) G. Diepen
 2009 (with L.C. van der Gaag, H.L. Bodlaender, and G. Tel) J.H.P. Kwisthout
 2011 (with H.L. Bodlaender) J.M.M. van Rooy
 2013 (with H.L. Bodlaender) B.M.P Jansen (winner *Chr. Huygens Prize 2014*)
 2014 T.C. van Dijk
 2018 (with J.M. van den Akker and J.A. Hoogeveen) M.E. van Kooten Niekerk

MSc Theses supervised

Over 80, see the listing at <https://webpace.science.uu.nl/~leeuw112/MSctheses.pdf> for more details.

Graduate and Undergraduate Courses and Seminars taught

See <https://webpace.science.uu.nl/~leeuw112/Courses.pdf> for a listing.

Memberships

ACM (since 1973), *ACM-SIGACT*, Computability in Europe (CiE), European Association for Theoretical Computer Science (EATCS), Gesellschaft für Informatik (GI, *Plus-Mitglied*), IFIP Techn. Committee 1-Foundations of Computer Science (IFIP TC1, *Distinguished Fel-*

low), Koninklijke Hollandsche Maatschappij der Wetenschappen (Royal Netherlands Society of Sciences and Humanities), Koninklijk Wiskundig Genootschap (Royal Mathematical Society, the Netherlands).

ADDRESS

Prof.Dr Jan van Leeuwen

Department of Information and Computing Sciences

Utrecht University

Princetonplein 5

3584 CC Utrecht

the Netherlands

Tel: +31-30-2534001

Email: J.vanLeeuwen1@uu.nl (also: j.vanleeuwen@acm.org)