CURRICULUM VITAE

Personal:

- Name: **Oleg P. Burdakov**
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- Date and place of birth: September 29, 1953, Moscow, USSR
- Citizenship: Russian and Swedish.
- Languages: English (fluent), Swedish (speaking and reading at present), French and German (speaking and reading in the past)

Education and Degrees:

- Docent in Optimization (2003), from Linköping University
- Ph.D. in Physical-Mathematical Sciences (1980), from the Department of Management Theory and Operational Research, Faculty of Management and Applied Mathematics, Moscow Institute of Physics and Technology (MPhTI).
  Advisor: Prof. Yuri Evtushenko
- M.S. in Applied Mathematics (1977) from the same department of MPhTI.

Research Interests:

Numerical methods for solving optimization problems and systems of nonlinear equations, in particular, Newton-type, stable secant and interpolation methods, globalization strategies. Numerical methods for solving monotone equations and saddle problems, linear and nonlinear. Cardinality-constrained optimization. Inverse problems, multilinear least-squares, nonsmooth optimization and equations. Monotonic regression: data fitting and interpolation. Hop-restricted shortest path and Steiner tree problems in graphs.

Academic Experience:

- 3/99–present **Biträdande Professor** (2/13–present)
  Universitetslektor, Docent (equiv. to Associate Professor, 3/99–1/13)
  Division of Optimization, Department of Mathematics, Linköping University, Sweden
- 1/11–present **Affiliated Faculty** of the Center for Applied Optimization at the University of Florida, USA
- 2/98–12/98 **Visiting Professor** of the grade MS6 (**Full Professor**)
  Department of Applied Mathematics, Institute of Mathematics, Statistics and Scientific Computing, University of Campinas, Brazil
- 1/95–12/97 **Senior Scientific Visitor**
  Parallel Algorithms Group, CERFACS (Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique), Toulouse, France

- 10/80–12/94 **Senior Research Scientist** (3/87–12/94)
  Research Scientist (1/87–3/87)
  Junior Research Scientist (10/80–12/86)
  Department of Applied Optimization, Computing Center of the Russian (USSR) Academy of Sciences, Moscow, Russia
- **Short Term Visiting Positions**
  State Key Laboratory of Scientific and Engineering Computing (China, 2017, 2018)
  City University of Hong Kong (Hong Kong, 2002)
  ICASE, NASA (USA, 1996)
  DIMACS (USA, 1996)
  University of Bologna (Italy, 1992, 1993)
  University of Calabria (Italy, 1992)
  INRIA (France, 1992)
  Technical University of Köthen (Germany, 1989, 1991)
  Technical University of Dresden (Germany, 1986, 1988, 1991)
  Argonne National Laboratory (USA, 1990)
  University of Bergamo (Italy, 1990)
  Martin–Luther University of Halle (Germany, 1986)
  International Institute for Applied System Analysis (Austria, 1984)

Professional Activities and Memberships:

- **Editor-in-Chief** of the journal "Optimization Methods and Software" (Taylor & Francis)
- **Conference Chair** for the 4th International Conference on Optimization Methods and Software (2017, Havana, Cuba); the 3rd International Conference on Optimization Methods and Software (2012, Crete, Greece); the Joint EUROPT-OMS Conference on Optimization (2007, Prague, Czech Republic); the 1st International Conference on Optimization Methods and Software (2002, Hangzhou, China)
- **Workshop Organizer** for the Workshop on Linear Algebra in Optimization (1996, Albi, France); the Workshop on Optimum Design of Multibody Systems (1996, Toulouse, France)
- **Conference Organizer** for the 1st Biennial Italian–Soviet Conference on Methods and Applications of Mathematical Programming (1992, Cetraro, Italy)
- **Mathematical Optimization Society** member.
- **International Society of Global Optimization** member.
- **Reviewer** for the Research Council of Norway; the Research Foundation Flanders (Belgium); the Israel Science Foundation; the Agency for Science, Technology and Research of Singapore; Research Grants Council of Hong Kong; the Natural Sciences and Engineering Research Council of Canada
- **Reviewer** for the journals: SIAM Journal on Optimization, Journal of Optimization Theory and Applications, Optimization Letters, Optimization Methods and Software, Annals of Operations Research, Applied Numerical Mathematics, Computational Statistics and Data Analysis, Computational Mathematics and Mathematical Physics, Cybernetics

Awards:

- A **winner** of the International Implementation Challenge in Solving Steiner Tree Problems organized in 2014 by the US Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) which is a collaboration between Rutgers University, Princeton University, and the research firms AT&T, Bell Labs, NEC, and Applied Communication Sciences.

- A winner of the Society for Mathematical Psychology **award for the most outstanding paper** published in the Journal of Mathematical Psychology in 2016-2019:
M.L. Kalish, J.C. Dunn, O.P. Burdakov and O. Sysoev (2016). A statistical test of the equality of latent orders. *Journal of Mathematical Psychology*, **70**, pp. 1-11.

- **Visiting Scientist award** under the Chinese Academy of Sciences President's International Fellowship Initiative for 2017.

- **Bronze Medal** of the USSR Exhibition of National Economic Achievements (1985) for the development of interactive optimization software DISO.

Recognition:

- **Key-note / plenary invited speaker** at the conferences (since 2010):
The 4th International Conference on Intelligent Systems, Metaheuristics and Swarm Intelligence (2020, Bhutan);
The 5th International Conference on Numerical Analysis and Optimization (2020, Oman);
International Conference on Optimization and Equilibrium Problems (2019, Germany);
International Conference on Mathematical Optimization Theory and Operations Research (2019, Russia);
The 6th International Conference on Computational and Experimental Science and Engineering (2019, Turkey);
The 9th Moscow International Conference on Operations Research (2018, Russia);
The 9th International Conference on Optimization and Applications (2018, Montenegro);
The Joint International Meeting of the Chinese Mathematical Society and the American Mathematical Society (2018, China);
The 5th International Conference on Computational and Experimental Science and Engineering (2018, Turkey);
Intl Workshop on Modern Optimization and Applications (China, 2018);
Conference on Structure under Monotonicity (USA, 2017);
17th Baikal Conf. on Methods of Optimization and their Applications (Russia, 2017);
4th Intl Conf. on Optimization and Numerical Analysis (Oman, 2017);
12th Intl Workshop on Operations Research (Cuba, 2017);
4th Intl Conf. on computational and experimental science and engineering (Turkey, 2017);
10th Intl Iranian Operations Research Society Conference (Iran, 2017);
Workshop on Advances in optimization with application to data assimilation (France, 2016);
3rd Intl Conf. on computational and experimental science and engineering (Turkey, 2016);
10th Intl Conference on Numerical Optimization and Numerical Linear Algebra (China, 2015);
5th Intl Conference on Network Analysis (Russia, 2015);
2nd Intl Conf. on computational and experimental science and engineering (Turkey, 2015);
DIMACS Workshop on Steiner Tree Problems (USA, 2014);
4th Intl Conference on Electronics, Communications and Networks (China 2014);
Intl Conf. on Methods of Optimization and Their Applications (Russia, 2014);

3rd Intl Conf. on Optimization and Numerical Analysis (Oman, 2014);
1st Intl Conf. on Computational and Experimental Science and Engineering (Turkey, 2014);
3rd World Congress of Global Optimization (China, 2013);
NATO Advanced Research Workshop (Ukraine, 2013);
8th Intl Conf. on Numerical Optimization and Numerical Linear Algebra (China, 2011);
2nd Intl Conf. on Optimization and Numerical Analysis (Oman, 2011);
3rd Yalta Optimization Conference (Ukraine, 2010);
2nd International Conf. on the Dynamics of Information Systems (USA, 2010).