

JIŘÍ SGALL – Curriculum Vitae

Personal

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Employment history

CHARLES UNIVERSITY, FACULTY OF MATHEMATICS AND PHYSICS, PRAHA, CZECH REPUBLIC
January 2009 – present. Associate professor (docent).

September 1996 – February 2000, January 2005 – December 2008. Researcher (part time).

ACADEMY OF SCIENCES, INSTITUTE OF MATHEMATICS, PRAHA, CZECH REPUBLIC
June 1994 – present. Researcher, since 2003 senior researcher, since January 2009 part time.

UNIVERSITY OF CHICAGO, DEPT. OF COMPUTER SCIENCE, CHICAGO, IL, USA
September 2000 – December 2000. Visiting professor.

TU EINDHOVEN, DEPT. OF COMPUTER SCIENCE, EINDHOVEN, THE NETHERLANDS
March 2000 – June 2000. Visiting professor.

HEBREW UNIVERSITY, INSTITUTE OF COMPUTER SCIENCE, JERUSALEM, ISRAEL
November 1994 – August 1995. Postdoctoral fellow. Golda Meir Postdoctoral Fellowship.

Education and academic degrees

DrSc. – 2001, Academy of Sciences, doctoral dissertation *On-line and approximation problems for scheduling and related problems*

Doc. – 2001, Charles University, habilitation thesis *Combinatorial problems in complexity theory*

CARNEGIE-MELLON UNIVERSITY, SCHOOL OF COMPUTER SCIENCE, PITTSBURGH, PA, U.S.A.
August 1990 – May 1994. Advisor Steven Rudich, PhD. Thesis *On-Line Scheduling on Parallel Machines*. Awarded degree Ph.D. in *Pure and Applied Logic*.

CZECHOSLOVAK ACADEMY OF SCIENCES, MATHEMATICAL INSTITUTE, PRAHA, CZECHOSLOVAKIA

October 1989 – August 1990. Graduate student in Theoretical Computer Science, advisors dr. Pudlák and dr. Sochor.

CHARLES UNIVERSITY, FACULTY OF MATHEMATICS AND PHYSICS, PRAHA, CZECHOSLOVAKIA
September 1983 – June 1988. In program in Computer Science and Mathematical Structures, specialized in logic and set theory. Degree of RNDr. awarded based on undergraduate thesis *Forcing in the Alternative Set Theory*, advisor dr. Sochor.

Honors and awards

The prize of the Academy of Sciences CR – 2010

Otto Wichterle award for young researchers – 2002

Junior Prize of the Learned Society of the Czech Republic – 2000

The prize of the Academy of Sciences CR for young researchers – 1997

Hlávková cena (The prize of Hlávka foundation) – 1994

Committee and editorial service

Journals:

Associate editor of *Operations Research Letters*, since 2000.

Associate editor of *Discrete Optimization*, since 2010.

Field editor of *Discrete Mathematics & Theoretical Computer Science*, since 2002.

Associate editor of *Journal of Scheduling*, 2003 – 2009.

Conferences:

Program committee chair: *International Colloquium on Automata, Languages, and Programming (ICALP), Track A*, Zurich, 2011.

Program committee co-chair and organizing committee chair: *Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP)*, Nymburk, 2011.

Program committee chair: *Mathematical Foundations of Computer Science (MFCS)*, Mariánské Lázně, 2001.

Program committee member:

Mathematical Foundations of Computer Science (MFCS), Brno, 2010;

Symposium on Theoretical Aspects of Computer Science (STACS), Nancy, 2010;

European Symposium on Algorithms (ESA), Copenhagen, 2009;

5th IFIP International Conference on Theoretical Computer Science (IFIP TCS), Milano, 2008;

Symposium on Stochastic Algorithms, Foundations, and Applications (SAGA), Zurich, 2007;

International Symposium on Combinatorics, Algorithms, Probabilistic and Experimental Methodologies (ESCAPE), Hangzhou, 2007;

Approximation Algorithms for Combinatorial Optimization Problems (APPROX), Barcelona, 2006;

International Colloquium on Automata, Languages, and Programming (ICALP), Venice, 2006;

Algorithmic Aspects in Information and Management (AAIM), Hong Kong, 2006;

MAPSP, Siena, 2005; *ICALP*, Eindhoven, 2003; *MAPSP*, Aussois, 2003; *ESA*, Rome, 2002; *MFCS*, Warsaw, 2002; *MFCS*, Bratislava, 2000; *STACS*, Trier, 1999; *MFCS*, Brno, 1998.

Organizing committee member:

European Symposium on Algorithms (ESA), Praha, 1999;

Logic Colloquium, Praha, 1998.

Other:

Czech Science Foundation - computer science panel chair, 2009 – 2011; mathematics and computer science subcommittee member, 2005 – 2009.

European Association for Theoretical Computer Science (EATCS) council member, 2001 – 2009.

Committee for DSc. degree in computer science, member 2003 – present.

Board of the Institute of mathematics of the Academy of Sciences CR, member, 2007 – 2010.

Scientific board of the Institute of Computer Science of the Academy of Sciences CR, member, 2003 – 2006.

Invited talks at conferences and workshops (since 2005)

2008 – *New Challenges on Scheduling Theory*, Luminy, France, *Graph Balancing: A Special Case of Scheduling Unrelated Parallel Machines*;

2008 – *Scheduling*, Dagstuhl, Germany, *Graph Balancing: A Special Case of Scheduling Unrelated Parallel Machines*;

2007 – *Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP)*, Istanbul, Turkey, plenary talk *Online scheduling of equal-length jobs on parallel machines*;

2007 – *Fair Division*, Dagstuhl, Germany, *Preemptive Scheduling on Uniformly Related Machines*;

2005 – *Algorithms for Optimization with Incomplete Information*, Dagstuhl, Germany, survey talk *Online scheduling*;

Invited talks at universities (since 2005)

2011 – Humboldt University, Berlin, Germany, *Frequency Allocation in Bipartite Graphs*;

2008 – Carnegie-Mellon University, Pittsburg, PA, U.S.A., *Online Scheduling: Optimal Algorithms for All Speeds*;

2008 – University of Nevada, Las Vegas, NV, U.S.A., *Online Scheduling: Optimal Algorithms for All Speeds*;

2006 – Zhejiang University, Hangzhou, China, short course *Online algorithms*;

2006 – Zhejiang University, Hangzhou, China, *Online Scheduling: Optimal Algorithms for All Speeds*;

Teaching experience

Students and degrees achieved under my supervision:

Ondřej Zajíček: Mgr., 2006; current PhD. student.

Tomáš Ebenlendr: Mgr., 2004; current PhD. student.

Tomáš Tichý: Mgr., 2001; PhD., 2008.

Marek Krčál: masters thesis will be submitted.

René Sitters: co-advisor, PhD., 2004, TU Eindhoven.

Petr Kolman: co-advisor, PhD., 1998.

Courses:

Since 1996, I have been teaching at Faculty of Mathematics and Physics of the Charles University advanced courses on *Probabilistic algorithms, Approximation and on-line algorithms*, and *Probabilistic proofs and NP-completeness*. I am also co-organizing *Seminar on approximation and online algorithms* and I was co-organizing *Complexity seminar* till 2009.

Since 2009 I have been teaching basic courses *Linear algebra* and *Optimization methods* and also an advanced course *Probabilistic method*.

As a visiting professor, I taught a course *Approximation and on-line algorithms* at the University of Chicago, IL, U.S.A., 2000, and a course *Optimization 4* at TU Eindhoven, The Netherlands, 2000.

Other:

I was the chair of the area committee *Theoretical computer science* of the international competition *SVOČ*, a research competition for university students in 2003 and 2007, and a committee member in 2008.

Grant projects (present and past)

Mathematical logic, complexity, and algorithms, 2009 – 2013. Grant IAA100190902 of the Grant Agency of the Academy of Sciences of the Czech Republic.

Online algorithms, randomness, and extremal problems, 2005 – 2007. Grant 201/01/0124 of the Grant Agency of the Czech Republic.

Probabilistic competitive algorithms for online problems, 2001 – 2003. A cooperative research grant CCR-9988360-001/ME-476 from the NSF (U.S.A.) and the MŠMT (Czech republic).

Combinatorial algorithms and combinatorial problems in complexity theory, 2001 – 2003. Grant 201/01/1195 of the Grant Agency of the Czech Republic.

Theories, proofs, and computational complexity, 2004 – 2008. Grant IAA1019904 of the Grant Agency of the Academy of Sciences of the Czech republic. Principal investigator P. Pudlák.

Institute for Theoretical Computer Science, 2000 – 2009. Research center supported by the projects LN00A056 and 1M0545 of the MŠMT (Ministry of education). Principal investigator J. Nešetřil.

Mathematical logic and computational complexity, 1999 – 2003. Grant IAA1019901 of the Grant Agency of the Academy of Sciences of the Czech republic. Principal investigator P. Pudlák.

On-line algorithms and communication complexity, 1998 – 2000. A postdoctoral grant 201/97/P038 of the Grant Agency of the Czech Republic.

Mathematical logic, complexity theory, and their connections, 1997 – 1999. A cooperative research grant INT-9600919/ME-103 from the NSF (U.S.A.) and the MŠMT (Czech republic). Principal investigators J. Krajíček and S. Buss.

Arithmetics, proof theory, and complexity theory, 1996 – 1998. Grant A1019602 of the Grant Agency of the Academy of Sciences of the Czech republic. Principal investigator P. Pudlák.

Mathematical logic: Arithmetic, proof theory and complexity theory, 1993 – 1996. Grant 93025 of the U.S.-Czechoslovak Science and Technology Program. Principal investigators J. Krajíček and S. Buss.

Metamathematics of arithmetic, complexity theory, and set theory, 1993 – 1995. Grant 119107 of the Grant Agency of the Academy of Sciences of the Czech republic. Principal investigator P. Pudlák.