JIŘÍ SGALL – Curriculum Vitae

Personal

Address: Computer Science Institute of Charles University, Faculty of Mathematics and physics, Malostranské nám. 25, CZ-11800 Praha 1, Czech Republic. Phone: +420-221 914 293, Fax: +420-257 531 014. E-mail `sgall@iuuk.mff.cuni.cz`, `http://iuuk.mff.cuni.cz/~sgall`.

Employment history

CHARLES UNIVERSITY, FACULTY OF MATHEMATICS AND PHYSICS, PRAHA, CZECH REPUBLIC
January 2018 – present. Vice-Dean for Computer Science.
January 2014 – December 2017. Director of Computer Science Institute of the Charles University.
January 2009 – present. Full professor (associate professor till 2012).
September 1996 – February 2000, January 2005 – December 2008. Researcher (part time).

ACADEMY OF SCIENCES, INSTITUTE OF MATHEMATICS, PRAHA, CZECH REPUBLIC
June 1994 – December 2016. 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, INST. OF COMPUTER SCIENCE, JERUSALEM, ISRAEL
November 1994 – August 1995. Postdoctoral fellow. Golda Meir Postdoctoral Fellowship.

Education and academic degrees

Prof. – 2012

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

CHARLES UNIVERSITY, FACULTY OF MATHEMATICS AND PHYSICS, PRAHA
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

Hlávkova cena (The prize of Hlávka foundation) – 1994

Committee and editorial service
Journals:

Associate editor of *Information and Computation*, since 2017.
Associate editor of *Operations Research Letters*, since 2000.

Associate editor of *Discrete Optimization*, 2010 – 2016.

Field editor of *Discrete Mathematics & Theoretical Computer Science*, 2002 – 2015.

Associate editor of *Algorithmica*, 2011 – 2013.

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

Conferences:

Organizing committee chair: *International Colloquium on Automata, Languages, and Programming (ICALP),* Praha, 2018.

Program committee chair: *Topics in Theoretical Computer Science (TTCS)*, Tehran, 2017.

Program committee chair: *Mathematical Foundations of Computer Science (MFCS)*, Wien, 2013.

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.

Steering committee member: MAPSP, MFCS

Program committee member:

Workshop on Approximation and Online Algorithms (WAOA), Wien, 2017;

International Conference on Algorithms and Discrete Applied Mathematics (CALDAM), Goa, 2017;

Euro-Par, Grenoble, 2016;

Workshop on Approximation and Online Algorithms (WAOA), Patras, 2015;

Hightlights of Logic, Games and Automata, Praha, 2015;

MFCS, Milano, 2015; *SPAA*, Praha, 2014; *MATCOS*, Koper, 2013; *COCOON*, Hangzhou, 2013; *WAOA*, Ljubljana, 2012; *CSR*, Nizhny Novgorod, 2012; *MFCS*, Brno, 2010; *STACS*, Nancy, 2010; *ESA*, Copenhagen, 2009; *IFIP TCS*, Milano, 2008; *SAGA*, Zurich, 2007; *ESCAPE*, Hangzhou, 2007; *ICALP*, Venice, 2006; *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:

European Association for Theoretical Computer Science (EATCS) council member, 2001 – 2009, 2017 – .

Organizing committee of Prague Computer Science Seminar, member, 2013 – , chair, 2017 – .

Scientific board of the Faculty of Informatics of Masaryk University, Brno, member, 2015 – present.

Scientific board of the Faculty of Science, Humanities and Education, TU Liberec, member, 2016 – present.

Attestation Board of the Institute of Computer Science of the Academy of Sciences CR, head, 2012 – 2017, member 2005 – 2009.

Committee for DSc. degree in computer science, member 2003 – 2017.

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

Supervisory board of the Institute of Mathematics of the Academy of Sciences CR, member, 2012 – 2017.

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 2012)

2018 – *Discrete Mathematics and Applications Conference*, Veszprém, Hungary, *New algorithms for bin stretching*;

2018 – *Scheduling*, Dagstuhl, Germany, *On Packet Scheduling with Adversarial Jamming and Speedup*;

2017 – *TTCS PhD Forum tutorial*, IPM Tehran, Iran, *Online bin packing: Old algorithms and new results*;

2016 – *Scheduling*, Dagstuhl, Germany, *Online Algorithms for Multi-Level Aggregation*;

2015 – *EURO Summer Institute on Online Optimization*, Szeged, Hungary, tutorial *Randomization in online scheduling*;

2015 – *CALDAM Pre-Conference School on Discrete Mathematics*, IIT Kanpur, India, *Online bin packing: Old algorithms and new results*;

2013 – *Scheduling*, Dagstuhl, Germany, *Online scheduling of jobs with fixed start times on related machines*;

2012 – *European Symposium on Algorithms (ESA)*, Ljubljana, Slovenia, *Open problems in throughput scheduling*;

Teaching experience
Students and degrees achieved under my supervision:

Pavel Veselý: Mgr., 2014; Ph.D. 2018.

Martin Böhm: Ph.D. 2018.

Štěpán Šimsa: Bc., 2018.

Lukáš Folwarczný: Bc., 2015, the prize of the Rector of Charles University.

Ondřej Zajíček: Mgr., 2006.

Tomáš Ebenlendr: Mgr., 2004; Ph.D., 2011.

Tomáš Tichý: Mgr., 2001; Ph.D., 2008.

René Sitters: co-advisor, Ph.D., 2004, TU Eindhoven.

Petr Kolman: co-advisor, Ph.D., 1998.

Courses: Since 1996, at Faculty of Mathematics and Physics of the Charles University I have introduced and have been teaching courses on

- *Probabilistic algorithms*,
- *Approximation and on-line algorithms*,
- *Seminar on approximation and online algorithms*,
- *Probabilistic proofs and NP-completeness*,
- *Optimization methods*, and
- *Introduction to approximation and randomized algorithms*.

I was also co-organizing *Complexity seminar* till 2009.

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)

Principal investigator:

Center for Foundations of Modern Computer Science, 2018 – 2023. Charles University research center in the program UNCE.

Modern algorithms: New challenges of complex data sets, 2017 – 2019. Grant 17-09142S of the Grant Agency of the Czech Republic.

Center of Modern Computer Science, 2012 – 2017. Charles University research center in the program UNCE.

Restricted computations: Algorithms, models, complexity, 2014 – 2016. Grant 14-10003S of the Grant Agency of the Czech Republic.

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.

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

Team member:

Center of excellence – Institute for Theoretical Computer Science, 2012 – 2018. Research center supported by the project P202/12/G061 of GA ČR. Principal investigator J. Nešetřil.

Institute for Theoretical Computer Science, 2000 – 2011. Research center supported by the projects LN00A056 and 1M0545 of the MŠMT (Ministry of education). Principal investigator J. Nešetřil.

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.

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.

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.