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Objective

My research interests are the fundamental problems in computer science and information technology that impact the real world, especially in the areas distributed computing, networking, and algorithms; currently in particular, wireless networking, multi-core systems, peer-to-peer computing, and social networking.

Overview of Achievements

- Head of the Distributed Computing Group, established in 2002.
- Unusual blend of *basic and applied research*, proving theorems on the one hand, and building practical systems on the other. More details on our research can be found on the group web page www.disco.ethz.ch.
- More than 100 peer-reviewed *publications in different areas*: Distributed Computing (e.g. PODC, SPAA, DISC), Systems & Networking (e.g. OSDI, MobiCom, MobiHoc, SenSys, IPSN, HotNets, IPTPS, Infocom), or Theory of Computer Science (e.g. STOC, FOCS, SODA, ICALP).
- Members of our group have won several paper *awards* at top conferences such as PODC, SPAA, DISC, or MobiCom. For more details, please visit www.disco.ethz.ch/publications.html.
- Some software projects turned into startup companies, e.g. Wuala, StreamForge. Several software projects have been covered by *popular media*, e.g. in 2007 PC World magazine listed Spamato among the “101 fantastic [software] freebies”.

Group Members

- Ph.D. students: Philipp Brandes, Raphael Eidenbenz, Klaus-Tycho Foerster, Stephan Holzer, Barbara Keller, Tobias Langner, Johannes Schneider, Jochen Seidel, Jasmin Smula, Jara Uitto, Samuel Welten
- Postdocs: Yuval Emek

Ph.D. Graduates

#	Student	Thesis Title	Co-Examiners	Defense
18	Raphael Eidenbenz	TBD	Karl Aberer, EPFL; Dov Monderer, Technion	February 2012
17	Johannes Schneider	Decentralized Coordination: Methods and Applications	Rachid Guerraoui, EPFL; Uzi Vishkin, Maryland	November 2011
16	Philipp Sommer	Wireless Embedded Systems: Time, Location, and Applications	Akos Ledeczki, Vanderbilt; John Stankovic, Virginia	September 2011
15	Remo Meier	Toward Structured and Time-Constraint Content Delivery Systems	Johan Pouwelse, TU Delft	March 2011
14*	Christoph Lenzen	Synchronization and Symmetry Breaking in Distributed Systems	Danny Dolev, Hebrew University; Berthold Vöcking, RWTH Aachen	January 2011
13	Michael Kuhn	Understanding and Organizing User Generated Data: Methods and Applications	Albrecht Schmidt, LMU Munich	August 2010
12	Nicolas Burri	Ultra-Low Power Sensor Networks: Development Tools, Design, and Implementation	Jochen Schiller, FU Berlin	April 2010
11	Roland Flury	Routing on the Geometry of Wireless Ad Hoc Networks	Sandor Fekete, TU Braunschweig; Leonidas Guibas, Stanford	September 2009
10	Olga Goussevskaia	Computational Complexity and Scheduling Algorithms for Wireless Networks	Stephan Eidenbenz, Los Alamos National Lab; Nitin Vaidya, Urbana-Champaign	July 2009
9	Yvonne Anne Pignolet (Oswald)	Algorithmic Challenges in Wireless Networks: Interference, Energy, and Incentives	James Aspnes, Yale; Subhash Suri, UCSB	March 2009

8*	Thomas Locher	Foundations of Aggregation and Synchronization in Distributed Systems	Nancy Lynch, MIT; Christian Scheideler, TU Munich; Jennifer Welch, Texas A&M	February 2009
7	Pascal von Rickenbach	Energy-Efficient Data Gathering in Sensor Networks	Magnús Halldórsson, Reykjavik; Bhaskar Krishnamachari, USC	May 2008
6	Stefan Schmid	Dynamics and Cooperation: Algorithmic Challenges in Peer-to-Peer Computing	Boaz Patt-Shamir, Tel Aviv; Tim Roughgarden, Stanford	April 2008
5	Regina O'Dell (Bischoff)	Understanding Ad Hoc Networks from Mobility to Geometry	Rajmohan Rajaraman, Northeastern; Dorothea Wagner, Karlsruhe KIT	September 2006
4	Keno Albrecht	Mastering Spam – A Multifaceted Approach with the Spamoto Spam Filter System	Gordon Cormack, Waterloo; Christof Fetzer, TU Dresden	September 2006
3*	Thomas Moscibroda	Locality, Scheduling, and Selfishness: Algorithmic Foundations of Highly Decentralized Networks	Christos Papadimitriou, Berkeley; David Peleg, Weizmann Institute; James Aspnes, Yale	July 2006
2*	Fabian Kuhn	The Price of Locality: Exploring the Complexity of Distributed Coordination Primitives	Nathan Linial, Hebrew University; Friedhelm Meyer auf der Heide, Paderborn; Maurice Herlihy, Brown University	August 2005
1	Aaron Zollinger	Networking Unleashed: Routing and Topology Control in Ad Hoc and Sensor Networks	Matthias Grossglauser, EPFL; Charles Perkins, Nokia Research	April 2005

- The theses marked with an asterisk (*) have been awarded with an *ETH medal*.
- About half of the PhD graduates joined a university or a research lab after their PhD: Microsoft Research (2), IBM Research (2), ABB Research, CSIRO Australia, Hebrew University, TU Munich; some founded a startup company called StreamForge GmbH (3), and some joined a company: Google (3), AppTornado, Ergon.
- Supervising numerous student projects: On average our group supervises more than a dozen Masters, Diploma, or Semester theses each year. For details, please visit www.disco.ethz.ch/theses.html.

Teaching

Course Name	Details	Year(s)
Distributed Systems	Undergraduate 3 rd year core course; taught together with Friedemann Mattern	Since 2009
Discrete Event Systems	Undergraduate selective course	Since 2004
Principles of Distributed Computing	Advanced graduate level course; currently taught alone, in earlier years with Peter Widmayer or Fabian Kuhn	Since 2003
Distributed Computing Seminar	Graduate-level research seminar	Since 2003
Distributed Systems Laboratory	Practical graduate-level group project; in collaboration with other professors	Since 2003
Computer Engineering I	Undergraduate 2 nd year basic course for EE students; taught together with Bernhard Plattner	2011
Ad Hoc and Sensor Networks	Advanced graduate level course	2007-2010
Computer Networks	Undergraduate 2 nd year basic course for CS students; mostly taught alone, once with Gustavo Alonso and Timothy Roscoe	2002-2006
Mobile Computing	Advanced graduate level course	2002-2006
Distributed Systems	Undergraduate 3 rd year core course; taught together with Friedemann Mattern and Gustavo Alonso	2002-2003
Web Algorithms	Advanced graduate level course; taught together with Peter Widmayer	2001-2005

- The web sites of all courses can be found at www.disco.ethz.ch/courses.html
- Additional teaching at various conferences and summer schools (see Selected Talks below)

Research Community Services

Name	Full Name	Year(s)	Role
ICALP	International Colloquium on Automata, Languages and Programming	2012	<i>PC Chair, Track C</i>
ICDCN	International Conference on Distributed Computing and Networking	2012	<i>General Co-Chair</i>
EATCS	European Association for Theoretical Computer Science	2011 – 2015	<i>Council Member</i>

NCCR MICS	Annual Workshop on Mobile Information and Communication Systems	2011	<i>Co-Organizer</i>
SSS	International Symposium on Stabilization, Safety, and Security of Distributed Systems	2011	<i>Track Chair</i>
ICDCN	International Conference on Distributed Computing and Networking	2010 –	<i>Advisory Committee Member</i>
TAPAS	Theory and Practice of Algorithms in (Computer) Systems	2010 –	<i>Steering Committee Member</i>
FOWANC	ACM International Workshop on Foundations of Wireless Ad Hoc and Sensor Networking and Computing	2010 –	<i>Steering Committee Member</i>
PODC	ACM Symposium on Principles of Distributed Computing	2010	<i>Local Chair</i>
Dagstuhl Seminar	Flexible Network Design	2010	<i>Co-Organizer</i>
ICDCN	International Conference on Distributed Computing and Networking	2009	<i>PC Co-Chair</i>
PODC	ACM Symposium on Principles of Distributed Computing	2007 – 2009	<i>Steering Committee Member</i>
Dijkstra Prize	Edsger W. Dijkstra Prize in Distributed Computing	2007	<i>Chair</i>
PODC	ACM Symposium on Principles of Distributed Computing	2007	<i>PC Chair</i>
IPTPS	International Workshop on Peer-to-Peer Systems	2007	<i>PC Co-Chair and Local Co-Chair</i>
Dagstuhl Seminar	Seminar on Geometry in Sensor Networks	2007	<i>Co-Organizer</i>
DISC	International Symposium on Distributed Computing	2004 – 2006	<i>Steering Committee Member</i>
OPODIS	International Conference on Principles of Distributed Systems	2005	<i>PC Co-Chair</i>
MobiHoc	ACM International Symposium on Mobile Ad Hoc Networking and Computing	2005	<i>PC Co-Chair</i>
Dagstuhl Seminar	Seminar on Algorithms for Sensor and Ad Hoc Networks	2005	<i>Co-Organizer</i>

Dynamo	Workshop on Dynamic Networks	2005	<i>Organizer</i>
NCCR MICS	Annual Workshop on Mobile Information and Communication Systems	2004	<i>Co-Organizer</i>
NCCR MICS	Summer School Mobile Information and Communication Systems	2004	<i>Co-Organizer</i>
SIROCCO	International Colloquium on Structural Information and Communication Complexity	1997	<i>Local Chair</i>
PODC	ACM Symposium on Principles of Distributed Computing	2012, 2004, 2002	PC Member
IPSN	International Conference on Information Processing in Sensor Networks	2011, 2010	PC Member
ICALP	International Colloquium on Automata, Languages and Programming	2011, 2009	PC Member
SPAA	ACM Symposium on Parallelism in Algorithms and Architectures	2011, 2006	PC Member
CoRoNet	International ACM Sigmobility Workshop on Cognitive Radio Networks	2010	PC Member
BuildSys	International ACM Workshop on Embedded Sensing Systems For Energy-Efficiency In Buildings	2010	PC Member
MobiHoc	ACM International Symposium on Mobile Ad Hoc Networking and Computing	2010, 2008, 2006, 2004	PC Member
IPIN	International Conference on Indoor Positioning and Indoor Navigation	2010	PC Member
ICDCS	IEEE International Conference on Distributed Computing Systems	2010, 2005	PC Member
IZS	International Zurich Seminar on Communications	2010, 2008, 2006	PC Member
ICDCN	International Conference on Distributed Computing and Networking	2010, 2006	PC Member
SocialCom	IEEE International Conference on Social Computing	2010	PC Member
P2P	International Conference on Peer-to-Peer Computing	2009	PC Member
IPDPS	IEEE International Parallel and Distributed Processing Symposium	2009	PC Member
INFOCOM	Conference of the IEEE Communications Society	2009, 2008	PC Area Chair
IPTPS	International Workshop on Peer-to-Peer Systems	2009, 2004	PC Member

FOWANC	ACM International Workshop on Foundations of Wireless Ad Hoc and Sensor Networking and Computing	2008	PC Member
DISC	International Symposium on Distributed Computing	2008, 2000	PC Member
MSN	International Conference on Mobile Ad-hoc and Sensor Networks	2006	PC Member
OPODIS	International Conference on Principles of Distributed Systems	2006	PC Member
SSS	International Symposium on Stabilization, Safety, and Security of Distributed Systems	2006	PC Member
SIROCCO	Colloquium on Structural Information and Communication Complexity	2006	PC Member
INFOCOM	Conference of the IEEE Communications Society	2006, 2005	PC Member
PWN	International Workshop on Pervasive Wireless Networking	2006	PC Member
HiPC	International Conference on High Performance Computing	2005	PC Member
MobiCom	ACM International Conference on Mobile Computing and Networking	2005, 2004, 2003	PC Member
MASS	IEEE International Conference on Mobile Ad-hoc and Sensor Systems	2004	PC Member
FOMC	Joint Workshop on Foundations of Mobile Computing	2003	PC Member

- Reviewer of hundreds of journal and additional conference papers.

Ph.D. Theses Examination Board

#	Student	Thesis Title	Advisor	Place	Year
18	Alexander Fanghänel	Scheduling in Wireless Networks with Oblivious Power Assignments	Berthold Vöcking	RWTH Aachen	2010
17	Carlo Nocentini	Dynamic Networks: Algorithms, Simulation, and Experiments	Pierluigi Crescenzi	Florence	2010
16	Jukka Suomela	Optimisation Problems in Wireless Sensor Networks: Local Algorithms and Local Graphs	Patrik Floreen	Helsinki	2009

15	Patrick Stuedi	From Theory to Practice: Fundamental Properties and Services of Mobile Ad Hoc Networks	Gustavo Alonso	ETH Zurich	2008
14	Till Bay	Hosting Distributed Software Projects: Concepts, Framework and the Origo Experience	Bertrand Meyer	ETH Zurich	2008
13	Alexander Kroeller	Algorithms for Topology-Aware Sensor Networks, Advisor	Sandor Fekete	TU Braunschweig	2007
12	Katharina Lehmann	On Local Behavior and Global Structures in the Evolution of Complex Networks	Michael Kaufmann	Tubingen	2007
11	Luzius Anderegg	Mechanisms for Efficient Selfish Routing and Positioning in Ad Hoc Networks	Peter Widmayer	ETH Zurich	2006
10	Tim Nieberg	Independent and Dominating Sets in Wireless Communication Networks	Johann Hurink	Twente	2006
9	Hannes Stratil	Advantages and Limitations of Position-based Communication in Wireless Ad-hoc Networks	Ulrich Schmid	TU Vienna	2006
8	Lujun Jia	Communication Structures for Ad Hoc Networks	Rajmohan Rajaraman	North-eastern	2005
7	Marc Heissenbüttel	Routing and Broadcasting in Ad-Hoc Networks	Torsten Braun	Bern	2005
6	Bernd Thallner	Topology Control for Fault-Tolerant Communication in Wireless Ad Hoc Networks	Ulrich Schmid	TU Vienna	2005
5	Phuong Ha	Reactive Shared Objects for Interprocess Synchronization	Philippas Tsigas	Chalmers	2004
4	Reto Strobl	Distributed Cryptographic Protocols in Asynchronous Networks with Universal Computability	Ueli Maurer	ETH Zurich	2004
3	Razvan Cristescu	Efficient Decentralized Communications in Sensor Networks	Martin Vetterli	EPFL	2004
2	Roger Karrer	Design of Topology-Aware Networked Applications	Thomas Gross	ETH Zurich	2002
1	Konrad Schlude	Distributed Data and Resources: Models, Tractability, and Complexity	Peter Widmayer	ETH Zurich	2002

Election Committees

University	Department	Position(s)	Year
Aalto University	Information and Computer Science	Three professor positions in information and computer science	2011
ETH Zurich	Information Technology and Electrical Engineering	Professor in Mathematical Methods in Information and Communication Technology	2010
Chalmers University	Computer Science	Professor in Computer Networks	2009
ETH Zurich	Information Technology and Electrical Engineering	Professor in Mathematical Methods in Information and Communication Technology	2009
ETH Zurich	Computer Science	Assistant Professor in Theoretical Computer Science	2008
ETH Zurich	Computer Science	Five professor positions in Systems and Applications	2006
ETH Zurich	Computer Science	Professor in Mobile Computing Systems	2005
ETH Zurich	Computer Science	Professor in Theory of Computer Science	2004

- In addition referee for more than two dozen professor position/tenure cases, for candidates in the USA, Europe, Israel, and Canada.

ETH/National Services

- Head of the Computer Engineering and Networks Laboratory, 2008 and 2009.
- Co-founder of the Institute for Pervasive Computing, Department of Computer Science, ETH Zurich.
- Member of the Commission for Studies (“Unterrichtskommission”) in the Department of Information Technology and Electrical Engineering at ETH Zurich, starting 2011.
- Chair of the Commission of Computing Projects (KIM) at the ITET Department, starting 2009.
- Member of the Admission Board for Graduate Studies at the ITET Department, starting 2006.
- Representing the ITET Department to prospective students several times, starting 2004.
- Co-Organizer of the ITET Keynote lecture series, in 2005.
- Industry courses, such as “Peer-to-Peer Computing” and “Wireless Networks and Mobile Computing”, each held several times.
- Member of the commission for diploma studies (“Unterrichtskommission”) in the Department of Computer Science at ETH Zurich, 2002 – 2004.
- Coach of the Swiss Olympic Team in Informatics, 1997 – 1999.
- Co-Organizer of the Swiss Championship in Informatics, 1996 – 1998.

Grants and Third Party Money

Funding Agency	Project Name	Contribution	Collaborators	Years
SNF	NCCR Mobile Information and Communication (MICS), Customizing the world of pervasive data	2 PhD 50%, CHF 320k	Gustavo Alonso	2010-2013
ETH/TH	NCCR Mobile Information and Communication (MICS), Customizing Project, Matching Funds	2 PhD 25%, CHF 160k	Gustavo Alonso	2010-2013
SNF	MC2: Fundamentals of Multi-Core Computing	2 PhD 50%, CHF 250k	-	2009-2012
SNF	P2P Streaming of Scalable Content for PCs and Consumer Electronics	CHF 300k	StreamForge	2009-2011
Hasler Stiftung	3GP2P: 3rd Generation Peer-to-Peer Systems	2 PhD 50%, CHF 250k	-	2006-2009
BBT/KTI	Energy Efficient Mesh Control for Wireless Sensor Networks	1 PhD, CHF 80k	Shockfish SA	2006-2007
ETH/TH	NCCR Mobile Information and Communication (MICS), Algorithms Project, Matching Funds	2 PhD 25%, CHF 160k	Peter Widmayer	2005-2009
SNF	NCCR Mobile Information and Communication (MICS), Algorithms for Ad hoc and Sensor Networks	2 PhD 50%, CHF 320k	Peter Widmayer	2005-2009
SNF	Decentralized Internetworking	2 PhD 50%, CHF 240k	-	2005-2008
SNF	COST Action 295 DYNAMO: Dynamic Networks	1 PhD 50%, CHF 120k	Peter Widmayer	2005-2009
EU	Elected vice chair of the European COST Action 295 DYNAMO	Travel and cooperation grants	-	2005-2009
NCCR MICS	Mobile Information and Communication Systems	Summer internship positions, about CHF 100k	-	2002-2008
Intel	Architectures for Mobile Information and Communication Systems	\$60k cash, \$100k equipment	Friedemann Mattern, Gustavo Alonso	2002-2003
ETH/TH	Efficient Algorithms for Selfish Agents	1 PhD 50%, CHF 120k	Peter Widmayer	2002-2005
Hasler	Fault-Tolerant and Efficient Peer-	2 PhD 50%, CHF	-	2002-

Stiftung	to-Peer Systems	240k		2005
SNF	Highly Available Distributed Data Structures	1 PhD 50%, CHF 80k	Peter Widmayer, Rachid Guerraoui	2002- 2005
ETH/TH	NCCR Mobile Information and Communication (MICS) project IP9 Matching Funds	2 PhD 25%, CHF 160k	Lothar Thiele, Friedemann Mattern	2001- 2005
SNF	NCCR Mobile Information and Communication (MICS) project IP9	2 PhD 50%, CHF 320k	Lothar Thiele, Friedemann Mattern, Andre Schiper	2001- 2005

Experience & Education

Time	Position	Affiliation
8/2008 – present	Full Professor	Distributed Computing Group, Computer Engineering and Networks Laboratory, Department of Information Technology and Electrical Engineering, ETH Zurich, Switzerland
7/2004 – 7/2008	Associate Professor	Distributed Computing Group, Computer Engineering and Networks Laboratory, Department of Information Technology and Electrical Engineering, ETH Zurich, Switzerland
10/2006 – 3/2007	Sabbatical	Macquarie University, Sydney, Australia
10/2001 – 6/2004	Assistant Professor	Distributed Computing Group, Institute for Pervasive Computing, Department of Computer Science, ETH Zurich, Switzerland
4/2000 – 10/2001	Post-Doc Researcher	Systems and Networking Group, Microsoft Research, Redmond, WA (Offer for full-time position)
4/1999 – 4/2000	Post-Doc Researcher	Computer Science Department, Brown University, Providence, RI
1995 – 1999	Ph.D. in Computer Science	Research and Teaching Assistant, Computer Science Department, ETH Zurich, Switzerland. (Advisor Peter Widmayer, Co-Examiner Maurice Herlihy, Additional Expert Nir Shavit)
1990 – 1995	Studies in Computer Science	ETH Zurich, Switzerland, with Minor in Operations Research

Personal

- Swiss citizen, born November 17, 1969
- Married, with three children (born 2002, 2005, and 2009)
- Mother tongue German; fluent in English; basic French

References

- References are available on request.

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Publications

- Updated September 2011
- The five most important publications are in **bold**
- Our research group follows the convention of the distributed computing community to have alphabetically ordered authors
- For citation information, please visit www.scholar.google.com (search for “Wattenhofer”)

Refereed Publications

2012

1. Silvio Frischknecht, Stephan Holzer, and Roger Wattenhofer. Networks Cannot Compute Their Diameter in Sublinear Time. Proceedings of the 23rd ACM-SIAM Symposium on Discrete Algorithms (SODA), Kyoto, Japan, January 2012.

2011

2. Samuel Pfaffen, Philipp Sommer, Christian Stocker, Roger Wattenhofer, and Samuel Welten. Planipes: Mobile Foot Pressure Analysis. Proceedings of the 1st International Workshop on Mobile Systems Applications, and Services for Healthcare (mHealthSys), Seattle, WA, USA, November 2011. (Best paper award.)
3. Johannes Schneider and Roger Wattenhofer. Trading Bit, Message, and Time Complexity of Distributed Algorithms. Proceedings of the 25th International Symposium on Distributed Computing (DISC), Rome, Italy, September 2011.
4. Thomas Fahrni, Michael Kuhn, Philipp Sommer, Roger Wattenhofer, and Samuel Welten. Sundroid: Solar Radiation Awareness with Smartphones. Proceedings of the 13th International Conference on Ubiquitous Computing (UbiComp), Beijing, September 2011.
5. Raphael Eidenbenz and Roger Wattenhofer. Good Programming in Transactional Memory. Journal Theoretical Computer Science (TCS), July 2011. (Journal version of an ISAAC 2009 paper.)

6. Johannes Schneider and Roger Wattenhofer. Bounds on Contention Management Algorithms. *Journal Theoretical Computer Science (TCS)*, July 2011. (Journal version of an ISAAC 2009 paper.)
7. Bastian Degener, Barbara Kempkes, Tobias Langner, Friedhelm Meyer Auf Der Heide, Peter Pietrzyk, and Roger Wattenhofer. Runtime Analysis of a Local Synchronous Gathering Algorithm for Mobile Robots. *Proceedings of the 20th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*, San Jose, California, US, June 2011.
8. Thomas Locher, Stefan Schmid, and Roger Wattenhofer. eDonkey & eMule's Kad: Measurements & Attacks. *Journal Fundamenta Informaticae*, Volume 110, Number 3, 2011. (Journal version of a DYNAS 2009 paper.)
9. Christoph Lenzen and Roger Wattenhofer. MIS on Trees. *Proceedings of the 29th Symposium on Principles of Distributed Computing (PODC)*, San Jose, California, US, June 2011.
10. Christoph Lenzen and Roger Wattenhofer. Tight Bounds for Parallel Randomized Load Balancing. *Proceedings of the 43rd Symposium on Theory of Computing (STOC)*, San Jose, California, US, June 2011.
11. Atish Das Sarma, Stephan Holzer, Liah Kor, Amos Korman, Danupon Nanongkai, Gopal Pandurangan, David Peleg, and Roger Wattenhofer. Distributed Verification and Hardness of Distributed Approximation. *Proceedings of the 43rd Symposium on Theory of Computing (STOC)*, San Jose, California, USA, June 2011.
12. Stephan Holzer, Yvonne Anne Pignolet, Jasmin Smula, and Roger Wattenhofer. Time-Optimal Information Exchange on Multiple Channels. *Proceedings of the 7th ACM SIGACT/SIGMOBILE International Workshop on Foundations of Mobile Computing (FOMC)*, San Jose, USA, June 2011.
13. Michael Kuhn, Martin Wirz, Matthias Fluckiger, Gerhard Troester, and Roger Wattenhofer. Sensing Dance Engagement for Collaborative Music Control. *Proceedings of the IEEE International Symposium on Wearable Computers (ISWC)*, San Francisco, California, USA, June 2011.
14. Georg Oberholzer, Philipp Sommer, and Roger Wattenhofer. SpiderBat: Augmenting Wireless Sensor Networks with Distance and Angle Information. *Proceedings of the 10th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, Chicago, IL, USA, April 2011.
15. Michael von Kaenel, Philipp Sommer, and Roger Wattenhofer. Ikarus: Large-Scale Participatory Sensing at High Altitudes. *Proceedings of the 12th Workshop on Mobile Computing Systems and Applications (HotMobile)*, Phoenix, Arizona, March 2011.
16. Raphael Eidenbenz, Thomas Locher, and Roger Wattenhofer. Hidden Communication in P2P Networks. *Proceedings of the 30th IEEE International Conference on Computer Communications (INFOCOM)*, Shanghai, China, April 2011.
17. Raphael Eidenbenz, Yvonne Anne Pignolet, Stefan Schmid, and Roger Wattenhofer. Cost and Complexity of Harnessing Games with Payments. *Journal International Game Theory Review (IGTR)*, January 2011. (Journal version of a ISAAC 2007 paper and a COCOA 2007 paper.)

18. Georg Oberholzer, Philipp Sommer and Roger Wattenhofer. The SpiderBat Ultrasound Positioning System. Demo in the Proceedings of the 8th ACM Conference on Embedded Networked Sensor Systems (SenSys), Zurich, Switzerland, November 2010.
19. David Gugelmann, Philipp Sommer and Roger Wattenhofer. Reliable and Energy-Efficient Bulk-Data Dissemination in Wireless Sensor Networks. Poster in the Proceedings of the 8th ACM Conference on Embedded Networked Sensor Systems (SenSys), Zurich, Switzerland, November 2010.
20. Michael Kuhn, Roger Wattenhofer, and Samuel Welten. Social Audio Features for Advanced Music Retrieval Interfaces. Proceedings of ACM Multimedia, Florence, October 2010.
21. Michael Kuhn, Roger Wattenhofer, and Samuel Welten. Improving Personal Diaries Using Social Audio Features. Short paper for Google Grand Challenge at ACM Multimedia, Florence, Italy, October 2010.
22. Johannes Schneider and Roger Wattenhofer. What Is the Use of Collision Detection (in Wireless Networks)? Proceedings of the 24th International Symposium on Distributed Computing (DISC), Cambridge, Massachusetts, September 2010.
23. Christoph Lenzen and Roger Wattenhofer. Minimum Dominating Set Approximation in Graphs of Bounded Arboricity. Proceedings of the 24th International Symposium on Distributed Computing (DISC), Cambridge, Massachusetts, September 2010.
24. Johannes Schneider and Roger Wattenhofer. A New Technique For Distributed Symmetry Breaking. Proceedings of the 29th Symposium on Principles of Distributed Computing (PODC), Zurich, Switzerland, July 2010.
25. Johannes Schneider and Roger Wattenhofer. Efficient Graph Algorithms without Synchronization. Brief Announcement in the Proceedings of the 29th Symposium on Principles of Distributed Computing (PODC), Zurich, Switzerland, July 2010.
26. Johannes Schneider and Roger Wattenhofer. Tree Decomposition for Faster Concurrent Data Structures. Brief Announcement in the Proceedings of the 29th Symposium on Principles of Distributed Computing (PODC), Zurich, Switzerland, July 2010.
27. Christoph Lenzen and Roger Wattenhofer. Exponential Speed-Up of Local Algorithms using Non-Local Communication. Brief Announcement in the Proceedings of the 29th Symposium on Principles of Distributed Computing (PODC), Zurich, Switzerland, July 2010.
28. Roger Wattenhofer. Physical Algorithms. Invited Paper. Proceedings of the 37th International Colloquium on Automata, Languages and Programming (ICALP), Bordeaux, France, July 2010.
29. Stephan Holzer, Yvonne Anne Pignolet, Jasmin Smula, and Roger Wattenhofer. Monitoring Churn in Wireless Networks. Proceedings of the 6th International Workshop on Algorithms for Sensor Systems (ALGOSENSORS), Wireless Ad Hoc Networks and Autonomous Mobile Entities, Bordeaux, France, July 2010.
30. David Hasenfratz, Johannes Schneider, and Roger Wattenhofer. Transactional Memory: How to Perform Load Adaption in a Simple And Distributed Manner. Proceedings of the 2010 International Conference on High Performance Computing & Simulation (HPCS), Caen, France, June 2010.
31. Johannes Schneider and Roger Wattenhofer. An Optimal Maximal Independent Set Algorithm for Bounded-Independence Graphs. Journal Distributed Computing, Volume 22, Number 5-6, March 2010. (Special issue for selected paper of PODC 2008.)

32. Roland Flury and Roger Wattenhofer. Slotted Programming for Sensor Networks. Proceedings of the 9th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), Stockholm, Sweden, April 2010.
33. Fabian Kuhn, Stefan Schmid and Roger Wattenhofer. Towards Worst-Case Churn Resistant Peer-to-Peer Systems. Journal Distributed Computing, Volume 22, Number 4, January 2010. (Journal version of an IPTPS 2005 paper.)
34. Christoph Lenzen, Thomas Locher, and Roger Wattenhofer. Tight Bounds for Clock Synchronization. Journal of the ACM (JACM), Volume 57, Issue 2, January 2010. (Journal version of a FOCS 2008 paper and a PODC 2009 paper.)
35. Yvonne Anne Pignolet, Stefan Schmid, and Roger Wattenhofer. Tight Bounds for Delay-Sensitive Aggregation. Journal Discrete Mathematics & Theoretical Computer Science (DMTCS), Vol 12, No 1, January 2010. (Journal version of a PODC 2008 paper.)
36. Christoph Lenzen, Thomas Locher, Philipp Sommer, and Roger Wattenhofer. Clock Synchronization: Open Problems in Theory and Practice. Invited Paper. Proceedings of the 36th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM), Špindlerův Mlýn, Czech Republic, January 2010.
37. Thomas Locher, David Mysicka, Stefan Schmid, and Roger Wattenhofer. Poisoning the Kad Network. Proceedings of the 11th International Conference on Distributed Computing and Networking (ICDCN), Kolkata, India, January 2010.

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38. Johannes Schneider and Roger Wattenhofer. Bounds On Contention Management Algorithms. Proceedings of the The 20th International Symposium on Algorithms and Computation (ISAAC), Honolulu, Hawaii, December 2009.
39. Raphael Eidenbenz and Roger Wattenhofer. Good Programming in Transactional Memory: Game Theory Meets Multicore Architecture. Proceedings of the The 20th International Symposium on Algorithms and Computation (ISAAC), Honolulu, Hawaii, December 2009. (A preliminary version of this paper was presented at SPAA 2009.)
40. Christoph Lenzen, Philipp Sommer, and Roger Wattenhofer. Optimal Clock Synchronization in Networks. Proceedings of the 7th ACM Conference on Embedded Networked Sensor Systems (SenSys), Berkeley, California, USA, November 2009.
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Selected Talks

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2. Roger Wattenhofer. Physical Algorithms. Keynote Speech. 5th China Wireless Sensor Network Conference (CWSN), Beijing, China, September 2011.
3. Roger Wattenhofer. Your Next Mobile Phone! Invited Talk. 16th Symposium on Privacy and Security (SPS), Zurich, Switzerland, September 2011.
4. Roger Wattenhofer. Theory Meets Practice: It's about Time. Invited Talk. Networking Lecture Series Workshop, TU Berlin, Germany, July 2011.
5. Roger Wattenhofer. Distributed Algorithms for Wireless Multihop Networks. Invited Tutorial. 10th International Conference on Ad Hoc Networks and Wireless (ADHOC-NOW), Paderborn, Germany, July 2011.
6. Roger Wattenhofer. Distributed Algorithms. Invited Tutorial. Workshop on Sublinear Algorithms. Bertinoro, Italy, May 2011.
7. Roger Wattenhofer. Physical Algorithms. Keynote Speech. 37th International Colloquium on Automata, Languages and Programming (ICALP), Bordeaux, France, July 2010.
8. Roger Wattenhofer. Distributed Algorithms. Lecture Series. DIMAP Summer School on Approximation and Randomized Algorithms, Warwick, UK, July 2010.
9. Roger Wattenhofer. Wireless Algorithms. Keynote Speech. 1st Workshop on Realistic Models for Algorithms in Wireless Networks (WRAWN), Bergen, Norway, June 2010.

10. Roger Wattenhofer. Theory Meets Practice: It's About Time! Keynote Speech. 12èmes Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (AlgoTel), Belle Dune, France, May 2010.
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12. Roger Wattenhofer. Self-Stabilization: From Efficacy to Efficiency. Keynote Speech. 11th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), Lyon, France, November 2009.
13. Roger Wattenhofer. Ad Hoc and Sensor Networks. Block Course, Salerno, Italy, July 2009.
14. Roger Wattenhofer. Theory for Sensor Networks, What is it Good For?! Academic Year Inauguration Lecture, University La Sapienza, Rome, Italy, November 2008.
15. Roger Wattenhofer. Theory for Sensor Networks, What is it Good For?! Invited Talk. 5th SIGACT-SIGOPS Workshop on Foundations of Mobile Computing (DIALM-POMC, now FOMC), Toronto, Canada, August 2008.
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17. Roger Wattenhofer. Algorithms for Sensor Networks. Invited Lecture. Summer School on Graphs and Algorithms in Communication Networks, Bertinoro, Italy, May 2008.
18. Roger Wattenhofer. Worst-Case Capacity in Wireless Networks. Keynote Speech. 4th Workshop on Resource Allocation in Wireless Networks (RAWNET), Berlin, Germany, March 2008.
19. Roger Wattenhofer. Sensor Networks: Distributed Computing and Networking Get Together to Gather Data. Keynote Speech. 9th International Conference on Distributed Computing and Networking (ICDCN), Kolkata, India, January 2008.
20. Roger Wattenhofer. The Complexity of Connectivity in Wireless Networks. Plenary Speech. 2nd Annual Workshop on Wireless Systems Advanced Research and Development (WISARD), Bangalore, India, January 2008.
21. Roger Wattenhofer. Sensor Networks: Distributed Algorithms Reloaded – or Revolutions? Plenary Speech. Graphs and Algorithms in Communication Networks (GRAAL), Zurich, Switzerland, September 2006.
22. Roger Wattenhofer. Sensor Networks: Distributed Algorithms Reloaded – or Revolutions? Keynote Speech. 13th Colloquium on Structural Information and Communication Complexity (SIROCCO), Chester, United Kingdom, July 2006.
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