

Gregory Chockler – Curriculum Vitae

Last updated: April 13, 2017

Current Address

Department of Computer Science
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Academic Degrees

Ph.D. Computer Science, Hebrew University of Jerusalem, Thesis: [60]	2003
M.Sc. Computer Science, Hebrew University of Jerusalem, <i>Magna cum laude</i> , Thesis: [61]	1997
B.Sc. Computer Science, Hebrew University of Jerusalem <i>Cum laude</i>	1993

Employment

Reader (Associate Professor), (October 2012 – present)
Department of Computer Science, Royal Holloway, University of London, UK

Research Staff Member, IBM Research
Cloud Application Platforms (September 2005 – December 2012)
Advanced Storage Technologies (January 2002 – September 2003)

Postdoctoral Associate, Theory of Distributed Systems, (September 2003 – September 2005)
MIT Computer Science and Artificial Intelligence Laboratory (MIT/CSAIL)

Adjunct Lecturer, Operating Systems, (September 2001 – September 2003)
School of Computer Science and Engineering, Hebrew University

Summer Intern (July – September, 2000)
Bell Labs, Lucent Technologies, Murray Hill, NJ, USA

Teaching

Royal Holloway, University of London

Large-Scale Data Storage and Processing, compulsory post-graduate course I developed

Computation with Data, compulsory post-graduate course I developed

Object-Oriented Programming, compulsory post-graduate course I developed

Computing Laboratory (Games), core undergraduate course

Software Engineering, core undergraduate course

MIT

Principles of Fault-Tolerance in Distributed Systems, top graduate course I developed

Hebrew University of Jerusalem

Operating Systems, required undergraduate course

Topics in Distributed Middleware Systems, top graduate course I developed

Computer Networks (teaching assistant)

Computer and Communication Security (teaching assistant)

Software Engineering (teaching assistant)

Open University of Israel

Compiler Organisation, instructor

Graduate Students and Postdocs Supervised

- Philip Nadler, Ph.D., jointly with Mike Spagat (Economics) and Zhiyuan Luo (CS), Royal Holloway, University of London (2016 –)
- Nery Riquelme-Granada, Ph.D., Royal Holloway, University of London (2016 –)
- Chhaya Trehan, Ph.D., jointly with Peter Robinson, Royal Holloway, University of London (2015 –)
- Andy Evans, M.Sc., Royal Holloway, University of London (2015)
- Thinh Ha, M.Sc., Royal Holloway, University of London (2014 – 2015)
- Ymir Vigfusson, Cornell
 - Postdoc mentor (2009-2011)
 - Internship mentor (winter 2009)
- Dmitri Perelman, Technion, internship mentor (summer 2010)
- Keren Censor, Technion, internship mentor (summer 2009)
- Sarunas Girdzijauskas, EPFL, Internship mentor (winter 2008)
- Calvin Newport, MIT/CSAIL, M.Sc. 2006. Masters co-advisor (with Nancy Lynch).

Dissertation Committees

- Ying Liu, KTH, Ph.D. Defence Opponent, 3 October 2016
- Ran Tao, Queen Mary, University of London, Ph.D. Dissertation Internal Examiner, 11 July 2014
- Trausti Saemundson, Reykjavik University, M.Sc. Dissertation Committee, Summer 2014
- Cosmin Arad, KTH, Ph.D. Dissertation Committee and Defence Opponent, June 2013
- Sarunas Girdzijauskas, Ph.D. Dissertation Committee, EPFL (2008-2009)

Selected Professional Activities

Journals

- *Information Processing Letters*
Editorial Board member (May 2010 – present)
- *Journal of Parallel and Distributing Computing*
Guest Editor, special issue on Cloud Computing (June 2011 issue)

Conferences

General Chair

IEEE International Conference on Peer-to-Peer Computing 2014 (P2P'14), September 8-12, 2014. London, UK

Workshop Organiser

ACM/SIGOPS Workshop on Large-Scale Distributed Systems and Middleware (**LADIS**)

- Founded the workshop in 2007 together with Ken Birman, Idit Keidar, and Roy Friedman
- General Chair: 2007, 2009 – current
- Steering Committee: 2011, 2012

Program Committee Member

ACM Annual SIGACT/SIGOPS Symposium on Principles of Distributed Computing (PODC)	2008, 2006, 2004
ACM International Conference on Distributed Event-Based Systems (DEBS)	2014, 2013, 2011, 2010, 2009, 2008
ACM Symposium on Cloud Computing (SOCC)	2016
IEEE International Conference on Distributed Computing Systems (ICDCS)	2016, 2015, 2014, 2012, 2009, 2008, 2005
International Conference on Principles of Distributed Systems (OPODIS)	2013
International Conference on Distributed Computing and Networks (ICDCN)	2013, 2011, 2010
International Symposium on Distributed Computing (DISC)	2015, 2010, 2009
Annual International Systems and Storage Conference (SYSTOR)	2011, 2009
IEEE International Conference on Peer-to-Peer Computing (P2P)	2013, 2012
IEEE International Conference on Cloud Computing (IEEE CLOUD)	2013
IEEE International Conference on Big Data (IEEE BigData)	2016, 2015, 2014, 2013
IEEE International Conference on Cloud Engineering (IC2E)	2016, 2015, 2014, 2013
IEEE International Symposium on Reliable Distributed Systems (SRDS)	2016
International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS)	2017, 2013, 2009
ACM Workshop on Distributed Cloud Computing (DCC)	2017, 2016
ACM/SIGOPS Workshop on Large-Scale Distributed Systems and Middleware	2008 (chair), 2007

Organizing Committee Member

Organising Chair, 2018 ACM Symposium on Principles of Distributed Computing (PODC 2018)

Grant Chair, EuroSys 2016

Publicity Chair, ACM Symposium on Cloud Computing (SoCC 2013)

Local Arrangements Chair, ACM Symposium on Principles of Distributed Computing (PODC 2005)

Reviewing Panels

French National Research Agency (ANR).

Economic and Social Research Council (ESRC): New and Emerging Forms of Data - Policy Demonstrator Projects, Commissioning Panel Member, January 2017

Israel Science Foundation (ISF), 2015

Flemish Agency for Innovation by Science and Technology (IWT), ICON Call 2014

Computing in the Cloud action line of European Institute of Innovation & Technology ICT Labs (EIT ICT Labs) Call 2014.

Professional Body Nominations

EU/FP7 Research and Innovation for SEcurity, Privacy and Trustworthiness in the Information Society (RISEPTIS), Member of WG1: Security and Dependability in the Future Internet (2008 – 2009).

IBM Professional Interest Community on Distributed and Fault-Tolerant Computing, Co-Chair (2005 – 2012).

Departmental Activities

Current Activities

Programme Director for MSc Internet-of-Things and Distributed and Networking Systems, since January 2015

Industry Relations Liaison, since September 2013

Industrial Advisory Board Chair, since September 2013

British Gas Consultancy Coordinator, since January 2014

Former Activities

Impact Officer, 2014 – 2015

Departmental Seminar Organiser, January 2013 – January 2014

Grants

- Coleman-Cohen Exchange Programme, research collaboration with Technion: 2016, £1.5K
- Magna Carta Doctoral Training Centre, **Fully Funded PhD Studentship** in Economic Modelling for Data Science (jointly with the Department of Economics): 2016 – 2019
- Faculty Award, by Facebook Inc.: 2015, £25K
- “Scalable Software for Multi-Core”, Royal Society: 2014–2016, £12K
- Royal Holloway, University of London, Research Strategy Fund (jointly with Department of Economics), 2014, £5K
- EU/FP7 Project **CoMiFin (Communication Middleware for Monitoring Financial Critical Infrastructure)**, IBM Site Leader (2008-2011). Project received the closing grade of *excellent*.

Awards and Honors

Awards for scientific papers:

- Middleware 2000 Best Paper Award, by The Technical Committee 6 (TC6) of the International Federation for Information Processing (IFIP), 2000 (for [50])
- Middleware 2000 Best Student Paper Award, by Agilent Technologies, 2000 (for [50])

Papers invited from the following conferences to appear in journals:

- 2002 ACM Symposium on Principles of Distributed Computing (PODC’02), [45] invited, appears as [13]

Industry Awards:

- Scientific Accomplishment: Group Communication in Large-Scale Distributed Systems, IBM (2012)
- Outstanding Technical Accomplishment, IBM (2012, 2010)
- Innovative Applications Award, Event Processing Technical Society (2011)
- Excellence and Eminence Award, IBM (2011)

Scholarships and fellowships:

- Porat Scholarship, Hebrew University, 2001-2002.
- Israel Committee for Planning and Budgeting (VATAT) Scholarship, 1999.

Invited Presentations

Since 1996, Dr. Chockler has delivered numerous scientific lectures at scientific symposia, leading universities, and industrial research institutions. Below is a sample of noteworthy past and future invited lectures.

- Bertinoro Workshop on Distributed Runtime Verification (DRV) Bertinoro, Italy, May 2016.
- 32nd British Colloquium of Theoretical Computer Science (BCTCS 2016), March 2016.
- Summer Workshop, Computer Science Laboratory, Swedish Institute for Computer Science, Summer 2014, Stockholm, Sweden.
- Distributed Computing Seminar, Technion Israel Institute of Technology, December 2013.
- Advanced Topics in Distributed Computing, European Master in Distributed Computing, Fall 2012, KTH Royal Institute of Technology, Stockholm, Sweden.
- Dagstuhl Seminar, Security and Dependability for Federated Cloud Platforms, July 2012, Dagstuhl, Germany.
- Distinguished Lecture, Swedish Institute for Computer Science (SICS), July 2010, Stockholm, Sweden.
- Summer Research Institute, The Swiss Federal Institute of Technology Lausanne (EPFL), July 2008, Lausanne, Switzerland.
- Cornell Systems Lunch, March 2008, Cornell University, Ithaca, NY, USA.
- ClubNet Seminar, February 2008, Electrical Engineering, Technion, Haifa, Israel.
- Microsoft Research Silicon Valley, January 2008.
- Keynote Address, 2nd ESFORS Workshop on Software and Service Development, Security, and Dependability, July 10–11, 2007, Maribor, Slovenia.
- 1st European Summer School on Knowledge Discovery for Ubiquitous Computing, September 14–16, 2006, University of Dortmund, Germany.
- Dagstuhl Seminar, From Security to Availability, September 10–15, 2006, Dagstuhl, Germany.
- Summer Research Institute, The Swiss Federal Institute of Technology Lausanne (EPFL), July 2004, Lausanne, Switzerland.
- First Bertinoro Workshop on Future Directions in Distributed Computing (FuDiCo), Bertinoro, Italy, 2002.

Publications

Books

- [1] **Collaborative Financial Infrastructure Protection**, Roberto Baldoni, and Gregory Chockler (Eds.), Springer 2012, ISBN 978-3-642-20419-7.

Journal and Magazine Articles

- [2] **Verifying cloud services: present and future**, Sara Bouchenak, Gregory Chockler, Hana Chockler, Gabriela Gheorghe, Nuno Santos, and Alexander Shraer. 2013. *SIGOPS Oper. Syst. Rev.* 47, 2 (July 2013), 6-19.
- [3] **Design and implementation of caching services in the cloud**, Gregory Chockler, Guy Laden, and Ymir Vigfusson, *IBM Journal of Research and Development*, special issue on Cloud Computing, 55(6): 1–11, December 2011.
- [4] **Clouds at the Crossroads: Research Perspectives**, Ymir Vigfusson, and Gregory Chockler, *ACM Crossroads*, 16(3): 10–13, March 2010.
- [5] **Bulletin Board: A Scalable And Robust Eventually Consistent Shared Memory Over a Peer-To-Peer Overlay**, Vita Bortnikov, Gregory Chockler, Alexey Roytman, and Mike Spreitzer, *Operating Systems Review*, 44(2): 64–70, April 2010.
- [6] **Reliable Distributed Storage**, *IEEE Computer*, Gregory Chockler, Rachid Guerraoui, Idit Keidar, and Marco Vukolić, 42(4): 60–67, April 2009.
- [7] **Toward a Cloud Computing Research Agenda**, Ken Birman, Gregory Chockler, and Robbert van Renesse, *SIGACT News*, 40(2): 68–80, June 2009.
- [8] **Reconfigurable Distributed Storage for Dynamic Networks**, Gregory Chockler, Seth Gilbert, Vincent Gramoli, Peter M. Musial, Alexander A. Shvartsman, *Journal of Parallel and Distributed Computing*, 69(1):100–116, July 2009.
- [9] **Consensus and Collision Detectors in Radio Networks**, Gregory Chockler, Murat Demirbas, Seth Gilbert, Nancy Lynch, Calvin Newport, and Tina Nolte. *Distributed Computing*, 21(1):55–84, June 2008.
- [10] **Wait-Free Regular Storage from Byzantine Components**, Ittai Abraham, Gregory Chockler, Idit Keidar, and Dahlia Malkhi. *Information Processing Letters* 101(2): 60-65, 2007.
- [11] **Byzantine Disk Paxos: Optimal Resilience with Byzantine Shared Memory**, Ittai Abraham, Gregory Chockler, Idit Keidar and Dahlia Malkhi. *Distributed Computing* 18(5), pages 387-408, April 2006, Springer.
- [12] **Light-Weight Leases for Storage-Centric Coordination**, Gregory Chockler and Dahlia Malkhi, *International Journal of Parallel Programming (IJPP)*, 34(2): 143-170 (2006).
- [13] **Active Disk Paxos with infinitely many processes**, Gregory Chockler and Dahlia Malkhi, *Distributed Computing*, 18(1): 73-84 (2005), Springer. (A special issue dedicated to selected papers appearing in PODC 2002).
- [14] **On the Composability of Consistency Conditions**, Gregory Chockler, Roy Friedman, and Roman Vitenberg, *Information Processing Letters*, 86(4): 169-176 (2003).
- [15] **Group Communication Specification: A Comprehensive Study**, Gregory Chockler, Idit Keidar and Roman Vitenberg, *ACM Computing Surveys*, 33(4), pages 1-43, December 2001.

Chapter in Books

- [16] A Data-Centric Approach for Scalable State Machine Replication, Gregory Chockler, Dahlia Malkhi and Danny Dolev. In *Future Directions in Distributed Computing*, Lecture Notes in Computer Science Volume 2584, Springer-Verlag, 2003. Edited by Ben Zhao, Andre Schiper, Alex Shvartsman and Hakim Weatherspoon.

Refereed Conferences and Workshops

- [17] [Space Bounds for Reliable Storage: Fundamental Limits of Coding](#), Alexander Spiegelman, Yuval Cassuto, Gregory Chockler, Idit Keidar. ACM PODC 2016.
- [18] [Space Bounds for Reliable Storage: Fundamental Limits of Coding](#), Alex Spiegelman, Yuval Cassuto, Gregory Chockler, and Idit Keidar. In *Proceedings of International Conference on Principles of Distributed Computing (OPODIS)*, Rennes, France, December 2015.
- [19] [A Constructive Approach for Proving Data Structures Linearizability](#), Kfir Lev-Ari, Gregory Chockler and Idit Keidar. In *Proceedings of Distributed Computing - 29th International Symposium, DISC 2015*, LNCS 9363, pages 356–370, Tokyo, Japan, October 5–9, 2015.
- [20] [Space Bounds for Reliable Multi-Writer Data Store: Brief Announcement](#), Gregory Chockler, Dan Dobre, Alexander Shraer, and Alexander Spiegelman. In *Proceedings of Distributed Computing - 29th International Symposium, DISC 2015*, LNCS 9363, pages 673–674, Tokyo, Japan, October 5–9, 2015.
- [21] [Dynamic Performance Profiling of Cloud Caches](#), Trausti Saemundsson, Hjortur Bjornsson, Gregory Chockler, and Ymir Vigfusson. In *Proceedings of the ACM Symposium on Cloud Computing (SOCC '14)*. ACM, New York, NY, USA, Article 28, 14 pages.
- [22] [On Correctness of Data Structures under Reads-Write Concurrency](#), Kfir Lev-Ari, Gregory Chockler, and Idit Keidar. In *Proceedings of Distributed Computing - 28th International Symposium, DISC 2014*, pages 273–287, Austin, TX, USA, October 12–15, 2014.
- [23] Towards Self-Healing SDN, Gregory Chockler and Amitabh Trehan, In *Proceedings of the Workshop on Distributed Software-Defined Networks (DSDN'14)*.
- [24] Brief announcement: Consistency and complexity tradeoffs for highly-available multi-cloud store. Gregory Chockler, Dan Dobre, and Alex Shraer. In *The International Symposium on Distributed Computing (DISC)*, 2013.
- [25] [Dynamic Performance Profiling of Cloud Caches](#) (Poster), Gregory Chockler, Ymir Vigfusson, Trausti Saemundsson, and Hjortur Bjornsson. *4th ACM Symposium on Cloud Computing (SOCC'13)*, Article 59, Santa Clara, CA, United States.
- [26] Reconfigurable State Machine Replication from Non-Reconfigurable Building Blocks, Vita Bortnikov, Gregory Chockler, Dmitri Perelman, Alexey Roytman, Shlomit Shachor and Ilya Shnayderman, in *Proceedings of the 31st Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2012)*, Madeira, Portugal, July 16–18, 2012.
- [27] FRAPPE: Fast Replication Platform for Elastic Services, Vita Bortnikov, Gregory Chockler, Dmitri Perelman, Alexey Roytman, Shlomit Shachor and Ilya Shnayderman, in *Proceedings of the 5th Workshop on Large-Scale Distributed Systems and Middleware (LADIS'11)*, Seattle, Washington, USA, September 2–3, 2011.
- [28] [Magnet: Practical Subscription Clustering for Internet-Scale Publish/Subscribe](#), in *Proc. of the 4th ACM International Conference on Distributed Event-Based Systems (DEBS'10)*, Cambridge, United Kingdom, July 12–15, 2010.

- [29] **Dr. Multicast: Rx for Data Center Communication Scalability**, Ymir Vigfusson, Hussam Abu-Libdeh, Mahesh Balakrishnan, Ken Birman, Robert Burgess, Gregory Chockler, Haoyuan Li, Yoav Tock, in Proc. of the *ACM SIGOPS 5th European conference on Computer systems (EuroSys'10)*: 349–362, Paris, France, April 13–16, 2010.
- [30] Data Caching as a Cloud Service, Gregory Chockler, Guy Laden, and Ymir Vigfusson, in Proceedings of the *5th Workshop on Large-Scale Distributed Systems and Middleware (LADIS'10)*, Zurich, Switzerland, July 2010.
- [31] **Virtual infrastructure for collision-prone wireless networks**, Gregory Chockler, Seth Gilbert, and Nancy Lynch, In Proc. *ACM SIGACT/SIGOPS Annual Symposium on Principles of Distributed Computing (PODC'08)*, pages 233–242, August 18–21, Toronto, Canada.
- [32] **Constructing Scalable Overlays for Pub/Sub with Many Topics: Problems, Algorithms, and Evaluation**, Gregory Chockler, Roie Melamed, Yoav Tock, and Roman Vitenberg. In Proceedings of the *26th ACM Symposium on Principles of Distributed Computing (PODC'07)*, August 12-15, 2007, Portland, Oregon, USA.
- [33] **SpiderCast: A Scalable Interest-Aware Overlay for Topic-Based Pub/Sub Communication**, Gregory Chockler, Roie Melamed, Yoav Tock, and Roman Vitenberg. In Proceedings of the *Inaugural International Conference on Distributed Event-Based Systems (DEBS'07)*, June 20-22, 2007, Toronto, Canada.
- [34] **Amnesic Distributed Storage**, Gregory Chockler, Rachid Guerraoui, Idit Keidar. In Proceedings of the *21st International Symposium on Distributed Computing (DISC'07)*, September 24-26, 2007, Lemesos, Cyprus. Published by Springer-Verlag GmbH in Lecture Notes in Computer Science, Volume 4731, 2007, Pages 139 - 151.
- [35] Local Building Blocks for a Scalable Pub/Sub Infrastructure. Alex Shraer, Sivan Bercovici, Gregory Chockler, Idit Keidar, Roie Melamed, Yoav Tock, Roman Vitenberg. The Second Workshop on Locality Preserving Distributed Computing Methods (LOCALITY 2007).
- [36] Local On-Line Maintenance of Scalable Pub/Sub Infrastructure. Alex Shraer, Gregory Chockler, Idit Keidar, Roie Melamed, Yoav Tock, Roman Vitenberg. The 37th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2007), June 25 - June 28, 2007, Edinburg, UK. Fast abstract.
- [37] **Communication-Efficient Probabilistic Quorum Systems for Sensor Networks**, Gregory Chockler, Seth Gilbert, and Boaz Patt-Shamir. In Proceedings of the *IEEE International Workshop on Foundations and Algorithms for Wireless Networking (FAWN'06)*, March 13, 2006, Pisa, Italy.
- [38] Reconfigurable Distributed Storage for Dynamic Networks. Gregory Chockler, Seth Gilbert, Vincent Gramoli, Peter Musial, and Alexander Shvartsman. In Proceedings of the *9th International Conference on Principles of Distributed Systems (OPODIS'05)*, December 12-14, 2005, Pisa, Italy.
- [39] **Proving Atomicity: An Assertion Approach**, Gregory Chockler, Nancy Lynch, Sayan Mitra, and Joshua Tauber. In Proceedings of the *19th International Symposium on Distributed Computing (DISC'05)*, September 26-28, 2005, Krakow, Poland. Published by Springer-Verlag GmbH in Lecture Notes in Computer Science, Volume 3724, Oct 2005, Pages 152 - 168
- [40] **Consensus and Collision Detectors in Wireless Ad Hoc Networks**, Gregory Chockler, Murat Demirbas, Seth Gilbert, Calvin Newport and Tina Nolte. In Proceedings of the *24th ACM Symposium on Principles of Distributed Computing (PODC'05)*, July 17-20, 2005, Las Vegas, Nevada, USA.
- [41] Reconciling the Theory and Practice of (Un)Reliable Wireless Broadcast. Gregory Chockler, Murat Demirbas, Seth Gilbert, Nancy Lynch, Calvin Newport and Tina Nolte. In Proceedings of the 4th Workshop on Assurance in Distributed Systems and Networks (ADSN'05), June 6, 2005, Columbus, Ohio, USA.
- [42] **Byzantine Disk Paxos: Optimal Resilience with Byzantine Shared Memory**, Ittai Abraham, Gregory Chockler, Idit Keidar and Dahlia Malkhi. In Proceedings of the 23rd ACM Symposium on Principles of Distributed Computing (PODC'04), July 25-28, 2004, St. John's, Newfoundland, Canada.

- [43] Optimal Resilience Wait-Free Storage from Byzantine Components: Inherent Costs and Solutions. Gregory Chockler, Idit Keidar and Dahlia Malkhi. FuDiCo II: S.O.S. Survivability: Obstacles and Solutions. 2nd Bertinoro Workshop on Future Directions in Distributed Computing, 23-25 June 2004 University of Bologna Residential Center Bertinoro (Forli), Italy.
- [44] Aquarius: A Data-Centric approach to CORBA Fault-Tolerance. Gregory Chockler, Dahlia Malkhi, Barak Merimovich and David Rabinowitz. The Workshop on Reliable and Secure Middleware, in Proceedings of the 2003 International Conference on Distributed Objects and Applications (DOA), Sicily, Italy, November 2003.
- [45] **Active Disk Paxos with infinitely many processes**, Gregory Chockler and Dahlia Malkhi, In Proceedings of the *21st ACM Symposium on Principles of Distributed Computing (PODC'02)*, July 20-24, 2002, Monterey, California, USA.
- [46] State-Machine Replication with Infinitely Many Processes: A position Paper, G. Chockler, D. Malkhi and D. Dolev, In Proceedings of the International Workshop on Future Directions in Distributed Computing (FuDiCo), Bertinoro, Italy, 2002.
- [47] Quorum Based Approach to CORBA Fault-Tolerance, Gregory Chockler, Dahlia Malkhi and Danny Dolev, In Proceedings of the European Research Seminar in Advanced Distributed Systems (ERSADS'01), University Residential Center of University of Bologna, Bertinoro (Forl) , Italy. 4-18 May 2001.
- [48] **Backoff Protocols for Distributed Mutual Exclusion and Ordering**, Gregory Chockler, Dahlia Malkhi and Michael Reiter . In Proceedings of the *21st International Conference on Distributed Computing Systems (ICDCS'01)*, Apr 16-19, 2001, Phoenix, Arizona, USA.
- [49] Consistency Conditions for a CORBA Caching Service e, by G. Chockler, R. Friedman and R. Vitenberg. In Proceedings of the 14th International Symposium on DIStributed Computing (DISC'2000), Oct 4-6, 2000, Toledo, Spain.
- [50] Implementing Caching Service for Distributed CORBA Objects, by G. Chockler, R. Vitenberg, R. Friedman, D. Dolev. In Proceedings of IFIP/ACM International Conference on Distributed Systems Platforms and Open Distributed Processing (Middleware'2000), 3rd - 7th April 2000, IBM Palisades Executive Conference Center, Hudson River Valley, NY, USA. **Best paper award.**
- [51] An Adaptive Totally Ordered Multicast Protocol that Tolerates Partitions, by G. Chockler, N. Huleihel, D. Dolev. In Proceedings of the Seventeenth ACM Symposium on Principles of Distributed Computing (PODC'98), June 28 - July 2 1998, Puerto Vallarta, Mexico.
- [52] TransMIDI: A System for MIDI Sessions Over the Network Using Transis, by D. Gang, G. Chockler, T. Anker, A. Kremer, T. Winkler. In Proceedings of the International Computer Music Conference (ICMC'97), September 1997, Thessaloniki, Greece.
- [53] The Caelum Toolkit for CSCW: The Sky is the Limit, by T. Anker, G. Chockler, D. Dolev, I. Keidar. In Proceedings of the Third International Workshop on Next Generation Information Technologies and Systems (NGITS'97), Neve-Ilan, Israel, June, 1997.
- [54] Exploiting Group Communication for Highly Available Video-On-Demand Services, by T. Anker, G. Chockler, I. Keidar, M. Rozman, J. Wexler. In Proceedings of the IEEE 13th International Conference on Advanced Science and Technology (ICAT 97) and the 2nd International Conference on Multimedia Information Systems (ICMIS 97), April 1997, pages 265-270.
- [55] Efficient State Transfer in Partitionable Environments , by Y. Amir, G. Chockler, R. Vitenberg, and D. Dolev. In Proceeding of the 2nd European Research Seminar in Advanced Distributed Systems (ERSADS'97), Zinal (Valais, Switzerland), March 17-21, 1997.

- [56] Multimedia Multicast Transport Service for Groupware , by G. Chockler, N. Huleihel, I. Keidar, and D. Dolev. In Proceedings of the TINA Conference on the Convergence of Telecommunications and Distributed Computing Technologies, September 1996, pages 43-54.
- [57] Group Communication as an Infrastructure for Distributed System Management, by Y. Amir, D. Breitgand, G. Chockler, D. Dolev. In Proceedings of the Third International Workshop on Services in Distributed and Networked Environment 1996, (SDNE'96).

Invited Papers

- [58] A Middleware Framework for Robust Applications in Wireless Ad Hoc Networks by Gregory Chockler, Murat Demirbas, Seth Gilbert, and Calvin Newport Proceeding of the 43rd Allerton Conference on Communication, Control, and Computing, September, 2005
- [59] Scalable Group Membership Services for Novel Applications, by T. Anker, G. Chockler, D. Dolev, I. Keidar. In the DIMACS book series, proceedings of the workshop on Networks in Distributed Computing. Edited by: Marios Mavronicolas, Michael Merritt, and Nir Shavit.

Other Reviewed Publications

- [60] Fault-Tolerance in Storage-Centric Systems, by Gregory Chockler. PhD Thesis, School of Computer Science and Engineering, The Hebrew University of Jerusalem, Israel. September 2003.
- [61] An Adaptive Totally Ordered Multicast Protocol that Tolerates Partitions. MSc Thesis, Department of Computer Science, The Hebrew University of Jerusalem, Israel. 1997.

Technical Reports

- [62] Wait-free Regular Storage from Byzantine Components. Ittai Abraham, Gregory Chockler, Idit Keidar, Dahlia Malkhi. Technical Report MIT-LCS-TR-984. Computer Science and Artificial Intelligence Laboratory, Cambridge MA 02139, MIT. April 5, 2005.
- [63] Light-Weight Leases for Storage-Centric Coordination. Gregory Chockler and Dahlia Malkhi. Technical Report MIT-LCS-TR-934, MIT Laboratory for Computer Science, Cambridge MA 02139, 2004.
- [64] Group Communication Specifications: A Comprehensive Study, by G. Chockler, D. Dolev, I. Keidar, R. Vitenberg. Technical Report MIT-LCS-TR-790, Massachusetts Institute of Technology, Laboratory for Computer Science, Technical Report CS99-31, Institute of Computer Science, The Hebrew University of Jerusalem and Technical Report CS0964, Computer Science Department, the Technion, Haifa, Israel.
- [65] The Design and Performance of Xpand: A Group Communication System for Wide Area Networks, Tal Anker, Gregory V. Chockler, Ilya Shnaiderman, Danny Dolev, Technical Report CS2001-56, Institute of Computer Science, The Hebrew University of Jerusalem.
- [66] The Design of Xpand: A Group Communication System for Wide Area Networks, Tal Anker, Gregory V. Chockler, Ilya Shnaiderman, Danny Dolev, Technical Report CS2000-31, Institute of Computer Science, The Hebrew University of Jerusalem.
- [67] Supporting Multiple Quality of Service Options with High Performance Groupware, by G. Chockler, N. Huleihel, I. Keidar, and D. Dolev. Technical Report CS96-3, Institute of Computer Science, The Hebrew University of Jerusalem, March 1996.

Pre-prints/In Submission

- [68] [Space Bounds for Reliable Storage: Fundamental Limits of Coding](#), Alexander Spiegelman, Yuval Cassuto, Gregory Chockler, Idit Keidar. In submission. Latest pre-print: arXiv:1507.05169, 2016.
- [69] [Space Bounds for Reliable Multi-Writer Data Store: Inherent Cost of Read/Write Primitives](#), Gregory Chockler, Dan Dobre, Alexander Shraer, Alexander Spiegelman. In submission. Latest pre-print: arXiv:1508.03762, 2015.
- [70] [Reconfigurable State Machine Replication from Non-Reconfigurable Building Blocks](#), Vita Bortnikov, Gregory Chockler, Dmitri Perelman, Alexey Roytman, Shlomit Shachor, Ilya Shnayderman. arXiv:1512.08943, 2015.

Patents and Patent Applications Pending

- [71] *Continuous Operation During Reconfiguration Periods*, Vita Bortnikov, Gregory Chockler, Dmitri Perelman, Alexey Roytman, Shlomit Shachor, and Ilya Shnayderman, US Patent 8943178, Issued January 27, 2015.
- [72] *Propagating Changes in Topic Subscription Status of Processes in an Overlay Network*, Vita Bortnikov, Gregory Chockler, Alexey Roytman, and Mike Spreitzer, US Patent 8661080, Filed July 15, 2010. Issued February 25, 2014.
- [73] *Cache Optimization via Predictive Cache Size Modification*, Gregory Chockler, Ymir Vigfusson, and Guy Laden, US Patent 8850122, Issued September 30, 2014.
- [74] *Backoff protocols and methods for distributed mutual exclusion and ordering*, Gregory Chockler, Dahlia Malkhi, and Michael Reiter, US Patent 7155524, Issued December 2006.
- [75] *Efficient Fail-Over in Replicated Systems*, by Vita Bortnikov, Gregory Chockler, Shlomit Shachor, and Ilya Shnayderman, US Patent Application 2015186229, Filed July 2, 2015.
- [76] *Allocation Enforcement in a Multi-Tenant Cache Mechanism*, Gregory Chockler, Ymir Vigfusson, Guy Laden, and Ben Parees, US Patent Application 2013138891, Filed May 30, 2013.
- [77] *Constructing Scalable Overlays for Pub-Sub with Many Topics: The Greedy Join-Leave Algorithm*, by Gregory Chockler, Roie Melamed, and Yoav Tock, US Patent Application 20100027442, Filed July 31, 2008.
- [78] *Multicasting in a Communication Network*, by Gregory Chockler, Roie Melamed, Yoav Tock, and Roman Vitenberg, US Patent Application 20080317028, Filed October 2007.