Lorenzo Alvisi

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Born in Bologna, Italy, on October 13, 1961. Italian citizen.

A Education

Ph.D.	Computer Science, Cornell University, 1996.
M.S.	Computer Science, Cornell University, 1994.
Corso di Specializzazione	Physics, University of Bologna, Italy, 1989.
Laurea *Summa cum Laude*	Physics, University of Bologna, Italy, 1987.

B Academic Appointments

Tisch University Professor	Cornell University, September 2017 – present.
University Distinguished Teaching Professor Emeritus	UT Austin, September 2017 – present.
University Distinguished Teaching Professor	UT Austin, 2016 – 2017.
Endowed Professorship #5 in Computer Science	UT Austin, 2014 – 2017.
Professor of Computer Science	UT Austin, 2007 – 2014.
Associate Professor (with tenure)	UT Austin, 2002 – 2007
Assistant Professor	UT Austin, 1996 – 2002.

B.1 Visiting Positions

TCE Henry Taub Distinguished Visiting Professor	The Technion, Haifa, Israel, Spring 2022.
Visiting Professor	Sapienza University, Rome, Italy, Fall 2021.
Visiting Scholar	Cornell University, July 2016 – August 2017.
Visiting Chair Professor	Shanghai Jiao Tong University, 2012 - 2015.
Visiting Professor	Max Planck Institute for Software Systems, Saarbrücken, Germany, June-December 2012, Summer 2013, Summer 2014, Summer 2015.
Visiting Researcher	Microsoft Research Asia, Beijing, June-September 2010.
Visiting Professor	University of Trento, Italy, Summer 2008.
Visiting Associate Professor	Sapienza University, Rome, Italy, Summer 2005.
Visiting Associate Professor	Cornell University, 2002 – 2003.
Visiting Assistant Professor	Cornell University, Summer 1997.

B.2 Other Appointments

Lecturer	Cornell University, Fall 1995.
Research and Teaching Assistant	Cornell University, 1991–1995.
Graduate Fellowship	Italian National Research Council, 1992 –93.
Graduate Fellowship	Inter-University Supercomputer Center, Bologna, Italy, 1990 – 1991.
Graduate Fellowship	Theoretical Chemistry, University of Bologna, 1988-89.
Graduate Fellowship	Italian National Institute of Nuclear Physics, 1987-88.

C Research Honors and Awards

- **Tisch University Professorship**, Cornell University, 2017 - present.
- **TCE Henry Taub Distinguished Visiting Professorship**, The Technion, Haifa, Spring 2022.
- **IEEE Fellow**, 2016.
- **Endowed Professorship in Computer Science**, UT Austin, 2014.
- **Google Faculty Research Award**, 2014, 2016, and 2017.
- **Humboldt Research Award**, Alexander von Humboldt Foundation, 2012.
- **Visiting Chair Professor**, Shanghai Jiao Tong University, 2012.
- **ACM Fellow**, 2010.
- **Faculty Fellow in Computer Sciences**, UT Austin, 1999-2002, 2004-2007.
- **Alfred P. Sloan Research Fellow**, 2001-2003.
- **Faculty Research Assignment**, 2002-2003.
- **Fellow, IBM Center for Advanced Studies**, 2001-2002.
- **IBM University Partnership Faculty Award**, 2000-2002.
- **NSF CAREER Award**, 1998-2002.
- **Dean's Fellow**, 1998-99.

D Teaching Honors and Awards

- **Cornell Association of Computer Science Undergraduates "Faculty of the Year"**, 2019.
- **UT Austin Academy of Distinguished Teachers**, 2016.
- **UT System Regents' Outstanding Teaching Award**, 2014.
- **UT Austin Outstanding Graduate Adviser Award**, 2010.

- **UT Austin College of Natural Sciences Teaching Excellence Award**, 2009.
- **Texas Exes Teaching Award** for Outstanding Professor (awarded yearly to one professor across the College of Natural Sciences), 2008.
- **Outstanding Teaching Assistant Award**, Department of Computer Science, Cornell University, 1992.

E Award papers

- **Jay Lepreau best paper award**, "Byzantine Ordered Consensus without Byzantine Oligarchy", Y. Zhang, Q. Chu, S. Setty, L. Zhou, and L. Alvisi. The 2020 USENIX Symposium on Operating Systems Design and Implementation (OSDI'20), November 2020.
- **Best paper award** "Lazy Means Smart: Reducing Repair Bandwidth Costs in Erasure-coded Distributed Storage", M. Silberstein, Y. Wang, L. Ganesh, L. Alvisi and M. Dahlin. The 7th ACM International Systems and Storage Conference (SYSTOR '14).
- **Best paper award**, "Zyzzyva: Speculative Byzantine Fault Tolerance", R. Kotla, L.Alvisi, M. Dahlin, A. Clement, E. Wong. The 21st Symposium on Operating Systems Principles (SOSP '07), October 2007.
- **Best paper award**, "SafeStore: A Durable and Practical Storage System", R. Kotla, L. Alvisi, and M. Dahlin. The USENIX Annual Technical Conference, June 2007.
- **Best paper award** "BAR Fault Tolerance for Cooperative Services", A. Aiyer, L. Alvisi, A. Clement, M. Dahlin, J.P. Martin, and C. Porth. The 20th ACM Symposium on Operating Systems Principles, (SOSP '05), October 2005.
- **Award Paper** "Fast Byzantine Consensus", J.P. Martin and L. Alvisi. The International Conference on Dependable Systems and Networks (DSN 2005), DCC Symposium, Yokohama, Japan, June 2005.
- **Best paper finalist** "Minimal Byzantine Storage", J.P. Martin, L. Alvisi, and M. Dahlin. The 16th International Symposium on Distributed Computing (DISC 2002), October 2002.
- **Best paper award**, "Engineering Server-Driven Consistency for Large Scale Dynamic Web Services", J. Yin, L. Alvisi, M. Dahlin, A. Iyengar. The International World Wide Web Conference (WWW10), May 2001.
- **Award paper** "The Cost of Recovery in Message Logging Protocols", S. Rao, L. Alvisi, and H. Vin. The 17th International Symposium on Reliable Distributed Systems (SRDS 98).
- **Best paper finalist** "Message Logging: Pessimistic, Optimistic, Causal and Optimal", L. Alvisi and K. Marzullo. The 15th IEEE International Conference on Distributed Computing Systems (ICDCS '95), June 1995.
- **Reprint** of "Nonblocking and Orphan-Free Message Logging Protocols", L. Alvisi, B. Hoppe, and K. Marzullo in the volume "Highlights from 25 Years" published in occasion of the 25th International Symposium on Fault-Tolerant Computing (FTCS25), 1995. (Paper appeared originally in the Proceedings of FTCS23).

F Publications

F.1 Refereed Articles in Journals

1. L. Alvisi, A. Clement, A. Epasto, S. Lattanzi, A. Panconesi. "Communities, Random Walks, and Social Sybil Defense". *Internet Mathematics*, vol. 10, issues 3-4, July 2014, pp. 360-420.

2. P. Mahajan, S. Setty, S. Lee, A. Clement, L. Alvisi, M. Dahlin, and M. Walfish. "Depot: Cloud Storage with Minimal Trust". *ACM Transactions on Computer Systems*, vol 29, no. 4, December 2011, pp. 12:1-12:38.

3. I. Abraham, L. Alvisi, and J. Halpern. "Distributed computing meets game theory: combining insights from two fields". *SIGACT News*, vol. 42, no. 2, June 2011, pp. 69-76.

4. L. Gao, M. Dahlin, J. Zheng, L. Alvisi, and A. Iyengar. "Dual-Quorum: A Highly Available and Consistent Replication System for Edge Services". *IEEE Transactions on Dependable and Secure Computing*, vol 7, no. 2, April-June 2010, pp. 159-174.

5. R. Kotla, A. Clement, E. Wong, L. Alvisi, and M. Dahlin. "Zyzzyva: Speculative Byzantine fault tolerance". *ACM Transactions on Computer Systems*, vol. 27, no. 4, December 2009, pp. 1-39.

6. D. Zagorodnov, K. Marzullo, L. Alvisi, and T. C. Bressoud. "Practical and Low-Overhead Masking of Failures of TCP- Based Servers". *ACM Transactions on Computer Systems*, vol. 27, no. 2, May 2009, pp. 1-39.

7. R. Kotla, A. Clement, E. Wong, L. Alvisi, and M. Dahlin. "Zyzzyva: Speculative Byzantine Fault Tolerance". *Communications of the ACM* vol. 51, no. 11, November 2008, pp. 86-95.

8. J.P. Martin and L. Alvisi. "Fast Byzantine Consensus". *IEEE Transactions on Dependable and Secure Computing*, Special issue dedicated to select papers from DSN 2005, vol. 3, no. 3, July-September 2005, pp. 202-215.

9. M. Kistler and L. Alvisi. "Improving the Performance of Software Distributed Shared Memory Through Speculation". *IEEE Transactions on Parallel and Distributed Systems*, vol. 16, no. 9, September 2005, pp. 885-896

10. K. Bhatia, K. Marzullo, and L. Alvisi. "Scalable Causal Message Logging for Wide-Area Environments". *Concurrency and Computation: Practice and Experience*, vol. 15, no. 3, August 2003, pp. 873-889.

11. J. Yin, L. Alvisi, M. Dahlin, and A. Iyengar. "Engineering Web Cache Consistency". *ACM Transactions on Internet Technology*, vol. 2, no. 3, August 2002, pp. 224-259.

12. E. Elnozahy, L. Alvisi, Y.M. Wang, and D.B. Johnson. "A Survey of Rollback-Recovery Protocols in Message-Passing Systems". *ACM Computing Surveys*, vol. 34, no. 3, September 2002, pp. 375-408.

13. L. Alvisi, K. Bhatia, and K. Marzullo. "Tracking Causality in Causal Message logging Protocols". *Distributed Computing*, vol. 15, no. 1, January 2002, pp. 1-15.

14. L. Alvisi, D. Malkhi, L. Pierce, and M. Reiter. "Fault Detection for Byzantine Quorum Systems". *IEEE Transactions on Parallel and Distributed Systems*, vol. 12, no. 9, September 2001, pp. 996-1007.

15. S. Rao, L. Alvisi, and H. Vin. "The Cost of Recovery in Message Logging Protocols". *IEEE Transactions on Knowledge and Data Engineering*, vol. 12, no. 2, March/April 2000, pp. 160-173.

16. J. Yin, L. Alvisi, M. Dahlin, and C. Lin. "Volume Leases for Consistency in Large-Scale Systems". *IEEE Transactions on Knowledge and Data Engineering Special issue on Web Technologies*, vol. 11, no. 2 (1999), pp. 563-576.

17. L. Alvisi, K. Marzullo. "Message Logging: Pessimistic, Optimistic, Causal and Optimal". *IEEE Transactions on Software Engineering*, vol. 24, no.2 (1998), pp. 149-159.

18. R. Davoli, L. A. Giachini, Ö. Babaoğlu, S. Amoroso, L. Alvisi. "Parallel Computing in Networks of Workstations with Paralex". *IEEE Transactions on Parallel and Distributed Systems*, vol. 7, no.4, (1996) pp. 371-384.

19. L. Alvisi, G. Casciola. "On the Two Mask Hidden-Line Algorithm". *Computers & Graphics*, vol. 13, no.2 (1989), pp. 193-206

20. L. Alvisi, G. Casciola. "TAM rivisitato: un metodo rapido ed esatto per la rappresentazione prospettica di superfici". *PIXEL*, October 1988.

21. L. Alvisi, R. Odorico. "A Rule Based Approach for Pattern Recognition in Planar Geometric Figures". *Computer Physics Communication*, vol. 51, (1988), pp. 443-450.

F.2 Book Chapters

1. L. Alvisi, B. Hoppe, and K. Marzullo. "Nonblocking and Orphan-Free Message Logging Protocols". In *Highlights from 25 years, Fault Tolerant Computing Symposium*, Pasadena, CA, June 1995, pp. 229-239. **Reprint** of the paper with the same title that appeared in *Proceedings of FTCS 23*.

2. L. Alvisi, A. Amoroso, A. Baronio, Ö. Babaoğlu, R. Davoli and L. A. Giachini. "Parallel Scientific Computing in Distributed Systems: The Paralex Approach". In *Reliable Distributed Computing with the ISIS Toolkit*. K. Birman and R. Van Renesse Editors, IEEE Press Computer Science Series, pp. 328-342. **Reprint** of the paper with the same title that appeared in *Proceedings of the 6th ACM International Conference on Supercomputing*.

F.3 Refereed Articles in Conferences

1. Y. Pu, A. Farahbahksh, L. Alvisi, and I. Eyal. "Gorilla: Safe Permissionless Byzantine Consensus". In *Proceedings of the 37th International Symposium on Distributed Computing (DISC 2023)*, L'Aquila, Italy, October 2023.

2. S. A. Mehdi, D. Hwang, S. Peter, L. Alvisi. "ScaleDB: A Scalable, Asynchronous In-Memory Database". In *Proceedings of 17th USENIX Symposium on Operating Systems Design and Implementation (OSDI '23)*, Boston, MA, July 2023, pp. 361-376.

3. M. Burke, F. Suri-Payer, J. Helt, L. Alvisi, and N. Crooks. "Morty: Scaling Concurrency Control with Re-Execution". In *Proceedings of the Eighteenth European Conference on Computer Systems (Eurosys '2)*, Rome, Italy, May 2023, pp. 687–702.

4. Y. Pu, L. Alvisi, and I. Eyal. "Safe Permissionless Consensus". In *Proceedings of the 36th International Symposium on Distributed Computing (DISC 2022)*, Atlanta, GA, October 2022, pp. 33:1–33:15.
   A version of the paper that includes the full proof is available in the Cryptology ePrint Archive, Paper 2022/796.

5. B. Canakci, L. Alvisi, and R. Van Renesse."Building Systems of Systems with Escher". In *Proceedings of the 22nd International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS'21)*, November 2021, pp. 34-50.

6. F. Suri-Payer, M. Burke, Z. Wang, Y. Zhang, L. Alvisi, and N. Crooks. "Basil: Breaking up BFT with ACID (Transactions)". In *Proceedings of the 28th ACM Symposium on Operating Systems Principles (SOSP 2021)*, October 2021, pp. 1-17.

7. Y. Zhang, Q. Chu, S. Setty, L. Zhou, and L. Alvisi. "Byzantine Ordered Consensus without Byzantine Oligarchy". In *Proceedings of the 14th USENIX Symposium on Operating Systems Design and Implementation (OSDI'20)*, Banff, Canada, November 2020, pp. 633-649. **Jay Lepreau best paper award**.

8. C. Ding, D. Chu, E. Zhao, X. Li, L. Alvisi and R. van Renesse. "Scalog: Seamless Reconfiguration and Total Order in a Scalable Shared Log". In *Proceedings of the 17th USENIX Symposium on Networked Systems Design and Implementation (NSDI '20)*, Santa Clara, CA, February 2020, pp. 325-338.

9. N. Crooks, M. Burke, S. Harel, E. Cecchetti, R. Agarwal, and L. Alvisi. "Obladi: Oblivious Serializable Transactions in the Cloud". In *Proceedings of the 13th USENIX Symposium on Operating Systems Design and Implementation (OSDI '18)*, Carlsbad, CA, October 2018.

10. T. Gupta, H. Fingler, L. Alvisi, and M. Walfish. "Pretzel: Email Encryption and Provider-Supplied Functions are Compatible". In *Proceedings of the 2017 ACM SIGCOMM Conference*, Los Angeles, CA, August 2017, pp. 169-182.

11. N. Crooks, Y. Pu, L. Alvisi, and A. Clement. "Seeing is Believing: A Client-Centric Specification of Database Isolation". In *Proceedings of the 37th ACM Symposium on Principles of Distributed Computing (PODC 2017)*, Washington DC, July 2017, pp. 73-82.

12. C. Su, C. Xie, N. Crooks, C. Ding, and L. Alvisi. "Bringing Modular Concurrency Control to the Next Level". In *Proceedings of the 2017 ACM SIGMOD*, Chicago, IL, May 2017, pp. 283-297.

13. S. A. Mehdi, C. Littley, N. Crooks, L. Alvisi, N. Bronson, and W. Lloyd. "I Can't Believe It's Not Causal! Scalable Causal Consistency with No Slowdown Cascades". In *Proceedings of the 14th USENIX Symposium on Networked Systems Design and Implementation (NSDI '17)*, Boston, MA, April 2017, pp. 453-468.

14. N. Crooks, Y. Pu, N. Estrada, T. Gupta, L. Alvisi, and A. Clement. "TARDiS: A Branch-And-Merge Approach to Weak Consistency". In *Proceedings of the 2016 ACM SIGMOD*, San Francisco, CA, June 2016, pp. 1615-1628.

15. T. Gupta, N. Crooks, W. Mulhern, S. Setty, L. Alvisi, and M. Walfish. "Scalable and Private Media Consumption with Popcorn". In *Proceedings of the 13th USENIX Symposium on Networked Systems Design and Implementation (NSDI '16)*, Santa Clara, CA, March 2016, pp. 90-107.

16. C. Xie, C. Su, C. Littley, L. Alvisi, M. Kapritsos, and Y. Wang. "High Performance ACID via Modular Concurrency Control". In *Proceedings of the 25th ACM Symposium on Operating Systems Principles (SOSP 2015)*, Monterey, CA, October 2015, pp. 279-294.

17. C. Xie, C. Su, M. Kapritsos, Y. Wang, N. Yaghmazadeh, L. Alvisi, and P. Mahajan. "Salt: Combining ACID and BASE in a Distributed Database". In *Proceedings of the 11th Symposium on Operating Systems Design and Implementation (OSDI '14)*, Denver, CO, October 2014, pp. 495-510.

18. M. Silberstein, Y. Wang, L. Ganesh, L. Alvisi, and M. Dahlin."Lazy Means Smart: Reducing Repair Bandwidth Costs in Erasure-coded Distributed Storage". In *Proceedings of the 7th ACM International Systems and Storage Conference (SYSTOR '14)* Haifa, Israel, June 2014, pp. 1-7. **Best paper award.**

19. Y. Wang, M. Kapritsos, L. Schmidt, L. Alvisi, and M. Dahlin. "Exalt: Empowering Researchers to Evaluate Large-Scale Storage Systems". In *Proceedings of the 11th USENIX Symposium on Networked Systems Design and Implementation (NSDI '14)*, Seattle, April 2014, pp. 129-142.

20. E. L. Wong and L. Alvisi. "What's a Little Collusion Between Friends?". In *Proceedings of the 32nd ACM Symposium on Principles of Distributed Computing (PODC 2013)*, Montréal, Canada, July 2013, pp. 240-249.

21. L. Alvisi, A. Clement, A. Epasto, S. Lattanzi, and A. Panconesi. "SoK: The evolution of Sybil defense via social networks". In *Proceedings of the 2013 IEEE Symposium on Security and Privacy (Oakland 2013)*, May 2013, pp. 382-396.

22. Y. Wang, M. Kapritsos, Z. Ren, P. Mahajan, J. Kirubanandam, L. Alvisi and M. Dahlin. "Robustness in the Salus Scalable Block Store". In *Proceedings of the 10th USENIX Symposium on Networked Systems Design and Implementation (NSDI '13)*, Lombard IL, April 2013, pp. 357-370.

23. M. Kapritsos, Y. Wang, V. Quéma, A. Clement, L. Alvisi, and M. Dahlin. "All about Eve: Execute-Verify Replication for Multi-Core Systems". In *Proceedings of the 10th Symposium on Operating Systems Design and Implementation (OSDI '12)*, Hollywood, CA, October 2012, pp. 237-250.

24. Y. Wang, L. Alvisi, and M. Dahlin. "Gnothi: Separating Data and Metadata for Efficient and Available Storage Replication". In *Proceedings of the 2012 USENIX Annual Technical Conference*, Boston, MA, June 2012, pp. 413-424.

25. E. L. Wong, I. Levy, L. Alvisi, A. Clement, and M. Dahlin. "Regret freedom isn't free". In *Proceedings of the 15th International Conference on the Principles of Distributed Systems (OPODIS '11)*, Toulouse, France, December 2011, pp. 80-95.

26. P. Mahajan, S. Setty, S. Lee, A. Clement, L. Alvisi, M. Dahlin, and M. Walfish. "Depot: Cloud Storage with Minimal Trust". In *Proceedings of the 9th Symposium on Operating Systems Design and Implementation (OSDI'10)*, Vancouver, Canada, October 2010, pp. 307-322.

27. E. L. Wong, L. Alvisi, and J. Leners. "It's on Me! The Benefit of Altruism in BAR Environments". In *Proceedings of the 24th International Symposium on Distributed Computing (DISC 2010)*, Boston, MA, September 2010, pp. 406-420.

28. A. Clement, M. Kapritsos, S. Lee, Y. Wang, L. Alvisi, M. Dahlin, and T. Riché. "UpRight Cluster Services". In *Proceedings of the 22nd ACM Symposium on Operating Systems Principles (SOSP 2009)*, Big Sky, MT, October 2009, pp. 277-290.

29. F. Mari, I. Melatti, I. Salvo, E. Tronci, L. Alvisi, A. Clement, and H. Li "Model Checking Coalition Nash Equilibria in MAD Distributed Systems". In *Proceedings of the 11th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2009)*, Lyon, France, November 2008, pp. 531-546.

30. A. Clement, M. Marchetti, E. Wong, L. Alvisi, and M. Dahlin. "Making Byzantine Fault Tolerant Systems Tolerate Byzantine Faults". In *Proceedings of the 6th USENIX Symposium on Network Systems Design and Implementation (NSDI 2009)*, Boston, MA, April 2009, pp. 153-168.

31. H. Li, A. Clement, M. Marchetti, E. Kapritsos, L. Robison, L. Alvisi and M. Dahlin. "FlightPath: Obedience vs Choice in Cooperative Services". In *Proceedings of the 7th USENIX Symposium on Operating Systems Design and Implementation (OSDI 2008)*, San Diego, CA, December 2008, pp. 355-368.

32. A. Clement, M. Marchetti, E. Wong, L. Alvisi, and M. Dahlin. "BFT: The Time is Now". In *Proceedings of the 2nd Workshop on Large-Scale Distributed Systems and Middleware (LADIS 2008)*, Yorktown Heights, NY, October 2008.

33. F. Mari, I. Melatti, I. Salvo, E. Tronci, L. Alvisi, A. Clement, and H. Li "Model Checking Nash Equilibria in MAD Distributed Systems". In *Proceedings of the 8th conference on Formal Methods in Computer-Aided Design (FMCAD 08)*, Portland, OR, November 2008, pp. 1-8.

34. A. Aiyer, L. Alvisi, R. Bazzi, and A. Clement. "Matrix Signatures: From MACs to Digital Signatures in Distributed Systems". In *Proceedings of the 22nd International Symposium on Distributed Computing (DISC 2008)*, Arcachon, France, October 2008, pp. 16-31.

35. A. Clement, H. Li, J. Napper, J. P. Martin, L. Alvisi, and M. Dahlin. "BAR Primer". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2008), DCC Symposium*, Anchorage, Alaska, June 2008, pp. 287-296.

36. R. Kotla, L. Alvisi, M. Dahlin, A. Clement, and E. L. Wong. "Zyzzyva: Speculative Byzantine Fault Tolerant Replication". In *Proceedings of the 21th ACM Symposium on Operating Systems Principles (SOSP 2007)*, Skamania Lodge, Stevenson, WA, October 2007, pp. 45-58. **Best paper award. Selected by the Program Committee for publication in ACM Transactions on Computer Systems**.

37. H. C. Li, A. Clement, A. S. Aiyer, and L. Alvisi. "The Paxos Register". In *Proceedings of the 26th IEEE International Symposium on Reliable Distributed Systems (SRDS 2007)*, Beijing, China, October 2007, pp. 114-126.

38. A. S. Aiyer, L. Alvisi, and R. Bazzi. "Bounded Wait-Free Implementation of Optimally resilient Byzantine Storage without (Unproven) Cryptographic Assumptions". In *Proceedings of the 21st International Symposium on Distributed Computing (DISC 2007)*, Lemesos, Cyprus, September 2007, pp. 7-19.

39. L. Alvisi. "BAR: Where Distributed Computing meets Game Theory". In *Proceedings of Third Latin America Symposium on Dependable Computing (LADC 2007)*, Morelia, Mexico, September 2007, pp. 235-236.

40. L. Alvisi, J. Doumen, R. Guerraoui, B. Koldehofe, H. Li, R. van Renesse, and G. Tredan. "How Robust are Gossip-Based Communication Protocols?". In *ACM SIGOPS Operating Systems Review (OSR) Special Issue on Gossip-Based Networking*, 41(5) October 2007, pp. 14-18.

41. E. L. Wong, P. Balasubramanian, L. Alvisi, M. G. Gouda, and V. Shmatikov. "Truth In Advertising: Lightweight Verification of Route Integrity". In *Proceedings of the 26th ACM Annual Symposium on the Principles of Distributed Computing (PODC 2007)*, Portland, OR, August 2007, pp. 147-156.

42. A. Aiyer, L. Alvisi, and R. Bazzi. " Bounded Wait-Free Implementation of Optimally Resilient Byzantine Storage without (Unproven) Cryptographic Assumptions". *Brief Announcement* in *Proceedings of the 26th ACM Annual Symposium on the Principles of Distributed Computing (PODC 2007)*, Portland, OR, August 2007, pp. 310-311.

43. A. Clement, J. Napper, H. Li, J. P. Martin, L. Alvisi, and M. Dahlin. "Theory of BAR Games". *Brief Announcement* in *Proceedings of the 26th ACM Annual Symposium on the Principles of Distributed Computing (PODC 2007)*, Portland, OR, August 2007, pp. 358-359.

44. R. Kotla, L. Alvisi, and M. Dahlin. "SafeStore: A Durable and Practical Storage System". In *Proceedings of the 2007 USENIX Annual Technical Conference*, Santa Clara, CA, June 2007, pp. 129-142. **Best Paper Award**.

45. H. C. Li, A. Clement, E. Wong, J. Napper, I. Roy, L. Alvisi, and M. Dahlin. "BAR Gossip". In *Proceedings of the 7th Symposium on Operating Systems Design and Implementation (OSDI 2006)*, Seattle, WA, November 2006, pp. 191-204.

46. A. S. Aiyer, L. Alvisi and M. G. Gouda. "Key Grids: A protocol Family for Assigning Symmetric Keys" In *Proceedings of the 14th International Conference on Network Protocols (ICNP 2006)*, Santa Barbara, CA, November 2006, pp. 178-186.

47. A. S. Aiyer, L. Alvisi, and R. Bazzi. "Byzantine and Multi-Writer K Quorums". In *Proceedings of the 20th International Symposium on Distributed Computing (DISC 2006)*, Stockholm, Sweden, October 2006, pp. 443-458.

48. J. Napper and L. Alvisi. "Robust Multithreaded Applications". To appear in *Proceedings of the ACM Workshop on Multithreading in Hardware and Software: Formal Approaches to Design and Verification (TV06)*, Seattle, WA, August 2006.

49. L. Gao, M. Dahlin, J. Zheng, L. Alvisi, and A. Iyengar. "Dual Quorum Replication for Edge Services". In *Proceedings of Middleware 2005*, Grenoble, France, December 2005, pp. 184-204.

50. A. S. Aiyer, L. Alvisi, A. Clement, M. Dahlin, J.P. Martin, and C. Porth. "BAR Fault Tolerance for Cooperative Services". In *Proceedings of the 20th ACM Symposium on Operating Systems Principles (SOSP 2005)*, Brighton, United Kingdom, October 2005, pp. 45-58. **Best paper award. Selected by the Program Committee for publication in ACM Transactions on Computer Systems**

51. A. S. Aiyer, L. Alvisi, and R. Bazzi. "On the Availability of non-Strict Quorum Systems". In *Proceedings of the 19th International Symposium on Distributed Computing (DISC 2005)*, Krakow, Poland, September 2005, pp. 48-62.

52. J.P. Martin and L. Alvisi. "Fast Byzantine Consensus". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2005), DCC Symposium*, Yokohama, Japan, June 2005, pp. 402-411. **Award paper. Selected by the Program Committee for publication in IEEE Transactions on Dependable and Secure Computing**.

53. J.P. Martin and L. Alvisi. "Dynamic Byzantine Storage". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2004), DCC Symposium*, Florence, Italy, June 2004, pp. 325-334.

54. J. Yin, J.P. Martin, A. Venkataramani, L. Alvisi, and M. Dahlin. "Separating Agreement from Execution for Byzantine Fault Tolerant Services". In *Proceedings of the 19th ACM Symposium on Operating Systems Principles (SOSP 2003)*, Lake George, NY, October 2003, pp. 253-268.

55. J. Napper, L. Alvisi, and H. Vin. "A Fault-Tolerant Java Virtual Machine". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2003), DCC Symposium*, San Francisco, CA, June 2003, pp. 425-434.

56. D. Zagorodnov, K. Marzullo, L. Alvisi, and T. Bressoud. "Engineering Fault Tolerant TCP/IP Services Using FT-TCP". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2003), DCC Symposium*, San Francisco, CA, June 2003, pp. 393-402.

57. J. Yin, J.P. Martin, A. Venkataramani, L. Alvisi, and M. Dahlin. "Towards a Practical Approach to Confidential Byzantine Fault Tolerance". In *Future Directions in Distributed Computing*, Lecture Notes in Computer Science, volume 2584, Springer, 2003, pp. 51-56.

58. R. Kokku, R. Rajamoni, L. Alvisi and H. Vin. "Half-Pipe Anchoring: An Efficient Technique for Multiple Connection Handoff". In *Proceedings of the 10th International Conference on Network Protocols (ICNP 2002)*, Paris, France, November 2002, pp. 12-21.

59. J.P. Martin, L. Alvisi, and M. Dahlin. "Minimal Byzantine Storage". In *Proceedings of the 16th International Symposium on Distributed Computing (DISC 2002)*, Toulouse, France, October 2002, pp. 311-326.

60. J.P. Martin, L. Alvisi, and M. Dahlin. "Small Byzantine Quorum Systems". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2002 and FTCS 32), DCC Symposium*, Washington, DC, June 2002, pp. 374-383.

61. P. Shivakumar, M. Kistler, S. Keckler, D. Burger, and L. Alvisi. "Modeling the Effect of Technology Trends on Soft Error Rate of Combinational Logic". In *Proceedings of the International Conference on Dependable Systems and Networks (DSN 2002 and FTCS 32), DCC Symposium*, Washington, DC, June 2002, pp. 389-398.

62. K. Bhatia, K. Marzullo, and L. Alvisi. "Scalable Causal Message Logging for Wide-area Environments". In *Proceedings of the European Conference on Parallel Computing (Europar 2001)*, Manchester, UK, August 2001, pp. 864-873.

63. Y. Zhang, H. Vin, L. Alvisi, W. Lee, and S. K. Dao. "Heterogeneous Networking - A New Survivability Paradigm". In *Proceedings of the ACM New Security Paradigms Workshop 2001*, Cloudcroft, NM, September 2001, pp. 33-39.

64. E. Pierce and L. Alvisi. "A Framework for Semantic Reasoning about Byzantine Quorum Systems". In *Brief Announcements, Proceedings of the 20th ACM Symposium on the Principles of Distributed Computing (PODC 2001)*, August 2001, pp. 317-319.

65. J. Yin, L. Alvisi, M. Dahlin, A. Iyengar. "Engineering server-driven consistency for large scale dynamic web services". The 10th International World Wide Web Conference (WWW10), May 2001, pp. 45-57. **Best Paper Award**.

66. L. Alvisi, T.C. Bressoud, A. El-Khashab, K. Marzullo, and D. Zagorodnov. "Wrapping Server-side TCP to Mask Connection Failures". In *Proceedings of Infocom 2001*, Anchorage, Alaska, April 2001, pp. 329-338.

67. L. Alvisi, D. Malkhi, L. Pierce, M. Reiter, and R. Wright. "Dynamic Byzantine Quorum Systems". In *Proceedings of the International Conference on Dependable Systems and Networks (FTCS 30 and DCCA 8)*, New York NY, June 2000, pp. 283-292.

68. J. Yin, L. Alvisi, M. Dahlin, and C. Lin. "Hierarchical Cache Consistency in a WAN". In *Proceedings of the 1999 USENIX Symposium on Internet Technologies and Systems (USITS99)*, October 1999, pp. 13-24.

69. L. Alvisi, E. Elnozahy, S. Rao, S. A. Husain, and A. de Mel. "An Analysis of Communication-Induced Checkpointing". In *Proceedings of the 29th Fault Tolerant Computing Symposium (FTCS 29)*, Madison WI, June 1999, pp. 48-55.

70. S. Rao, L. Alvisi, and H. Vin. "Egida: An Extensible Toolkit For Low-overhead Fault-Tolerance". In *Proceedings of the 29th Fault Tolerant Computing Symposium (FTCS 29)*, Madison WI, June 1999, pp. 242-249.

71. L. Alvisi, D. Mahlki, L. Pierce, and M. Reiter. "Probabilistic Techniques for Fault Detection in Byzantine Quorum Systems". In *Proceedings of the Seventh IFIP International Working Conference on Dependable Computing for Critical Applications (DCCA-7)* San Jose, CA, January 1999, pp. 357-372.

72. L. Alvisi and K. Marzullo. "WAFT: Support for Fault-Tolerance in Wide-Area Object Oriented Systems". In *Proceedings of the Information Survivability Workshop (ISW98)* October 1998, Orlando, Florida, pp. 5-10.

73. S. Rao, L. Alvisi and H. Vin. "The Cost of Recovery in Message Logging Protocols". In *Proceedings of the 17th International Symposium on Reliable Distributed Systems (SRDS 98)*, Purdue University, West Lafayette, Indiana, October 1998, pp. 10-18. **Award paper. Selected by the Program Committee for publication in IEEE Transactions on Knowledge and Data Engineering**.

74. K. Bhatia, K. Marzullo and L. Alvisi. "The Relative Overhead of Piggybacking in Causal Message-Logging Protocols". Workshop on Advances in Parallel and Distributed Systems (*APADS 98*). In *Proceedings of the 17th IEEE Symposium on Reliable Distributed Systems (SRDS 98)*, Purdue University, West Lafayette, Indiana, October 1998, pp. 348-353.

75. L. Alvisi, S. Rao and H. Vin. "Hybrid Message-Logging Protocols for Fast Recovery". In *Digest of FastAbstracts. The 28th IEEE Symposium on Fault-Tolerant Computing Systems (FTCS 28)*, Munich, Germany, June 1998, pp. 41-42.

76. L. Alvisi, S. Rao and H. Vin. "Low-Overhead Protocols for Fault-Tolerant File Sharing". In *Proceedings of the 18th IEEE International Conference on Distributed Computing Systems (ICDCS 98)*, Amsterdam, The Netherlands, May 1998, pp. 452-461.

77. J.Yin, L. Alvisi, M. Dahlin and C. Lin. "Using Leases to Support Server-Driven Consistency in Large-Scale Systems". In *Proceedings of the 18th IEEE International Conference on Distributed Computing Systems (ICDCS 98)*, Amsterdam, The Netherlands, May 1998, pp. 285-294.

78. L. Alvisi, R. Joshi, C. Lin and J. Misra. "Seuss: what the Doctor ordered". In *Proceedings of the 2nd IEEE International Workshop on Software Engineering for Parallel and Distributed Systems*, Boston, May 1997, pp. 284-290.

79. L. Alvisi and K. Marzullo. "Trade-Offs in Implementing Causal Message Logging Protocols". In *Proceedings of the 15th ACM Annual Symposium on the Principles of Distributed Computing (PODC 1996)*, Philadelphia, May 1996, pp. 58-67.

80. L. Alvisi and K. Marzullo. "Deriving Optimal Checkpoint Protocols for Distributed Shared Memory Architectures". In *Selected Papers, International Workshop in Theory and Practice in Distributed Systems*, K. Birman, F. Mattern and A. Schiper, editors, Springer-Verlag 1995, pp. 111-120.

81. L. Alvisi and K. Marzullo. "Message Logging: Pessimistic, Optimistic, Causal and Optimal". In *Proceedings of the 15th IEEE International Conference on Distributed Computing Systems (ICDCS 95)*, Vancouver, Canada, June 1995 pp. 229-236.

82. L. Alvisi, B. Hoppe, and K. Marzullo. "Nonblocking and Orphan-Free Message Logging Protocols", In *Proceedings of the 23rd Fault Tolerant Computing Symposium (FTCS 23)*, Toulouse, France, June 1993, pp. 145-154. **Reprinted** in *Highlights from 25 years, Fault Tolerant Computing Symposium*, Pasadena, CA, June 1995, pp. 229-239

83. Ö. Babaoğlu, L. Alvisi, S. Amoroso, R. Davoli, L. A. Giachini. "Paralex: An Environment for Parallel Programming in Distributed Systems". In *Proceedings of the 6th ACM International Conference on Supercomputing*, Washington, D.C., July 1992, 178–187.

84. L. Alvisi, A. Amoroso, A. Baronio, Ö. Babaoğlu, R. Davoli and L. A. Giachini. "Parallel Scientific Computing in Distributed Systems: The Paralex Approach". In *Proceedings of the Sixth International Symposium on Computer and Information Sciences*, Side, Antalya, Turkey, October 1991, 1093–1103.

85. L. Alvisi, G. Fabiani, L. Moltedo. "VIDA: An Ape Extension for the Steering of Numerical Simulations". In *Proceedings of the ISMM International Workshop on Parallel Computing*, Trani, Italy, September 1991, pp. 375-377.

F.4 Invited Papers

1. P. Yalagandula, L. Alvisi, M. Dahlin, and H. Vin. "C0PE: Consistent, 0-Administration Personal Environment". In *Proceedings of WORDS '01*, Rome, Italy, January 2001.

2. L. Alvisi. "Fault-Tolerance: Java's Missing Buzzword". In *Proceedings of the 7th Heterogeneous Computing Workshop*, Orlando, Florida, March 1998, pp. 156-158.

3. Ö. Babaoğlu, L. Alvisi, A. Amoroso and R. Davoli. "Mapping Parallel Computations onto Distributed Systems in Paralex". In *Proceedings of IEEE CompEuro '91*, Bologna, Italy, May 1991, 123–130.

F.5 Technical Reports not Otherwise Published

1. J. Napper and L. Alvisi. "Lock-free Serializable Transactions". Department of Computer Sciences, Technical Report TR-05-04, The University of Texas at Austin, Austin, Texas, February 2005.

2. P. Yalagandula, A. Garg, M. Dahlin, L. Alvisi, and H. Vin. "Transparent Mobility with Minimal Infrastructure". Department of Computer Sciences, Technical Report TR-01-30, The University of Texas at Austin, Austin, Texas, July 2001.

3. L. Alvisi and F.B. Schneider. "A Graphical Interface for CHIP". Department of Computer Science, Technical Report TR-96-1597, Cornell University, Ithaca, New York, June 1996.

4. L. Alvisi and K. Marzullo. "Optimal Message Logging Protocols". Department of Computer Science, Technical Report TR-94-1457, Cornell University, Ithaca, New York, September 1994.

5. Ö. Babaoğlu, L. Alvisi, S. Amoroso, R. Davoli and L. A. Giachini. "Run-time Support for Dynamic Load Balancing and Debugging in Paralex". Department of Computer Science, Technical Report TR-91-1251, Cornell University, Ithaca, New York, December 1991.

6. L. Alvisi, G. Casciola. "Two and Four Array Mask Algorithms in practice". Technical Report, Department of Mathematics, University of Bologna, Italy. (1989)

F.6 Thesis

- "Understanding the Message Logging Paradigm for Masking Process Crashes". Department of Computer Science, Cornell University, Ithaca, New York, January 1996. Available as Technical Report TR-96-1577.

- "Applying Expert System to the Analysis of Bidimensional Data". Tesi di Laurea, University of Bologna, Italy, 1987.

F.7 Patents

- T. Bressoud, L. Alvisi, A. El-Khashab, and P. Weidmann. "Method, apparatus and system for maintaining connections between computers using connection-oriented protocols" US Patent: US 7,213,063 B2. Assigned to Lucent Technologies Inc. Murray Hill, N.J. (US) and University of Texas at Austin, Austin, Texas. First filed January 17, 2001.

F.8 Software Releases

- "Egida" is a prototype of the toolkit described in the FTCS paper "Egida: An Extensible Toolkit For Low-overhead Fault-Tolerance". It is available for download under the GNU Public License.

- "TOPREC" is a rule-based program, written in OPS5, to recognize subpatterns in planar geometric figures. It is available for download from the Computer Physics Communication Program Library (http://www.cpc.cs.qub.ac.uk/cpc/, Catalog Identifier ABDG).

G Other Academic Activities

G.1 Student Advising

Ph.D. Dissertations Supervised

- Matthew Burke, "Towards High Performance Abstractions for Strong Geo-Replicated Systems", December 2023. Matthew is currently with Databricks.

- Syed Akbar Mehdi (with S. Peter), "Scalability through Asynchrony in Transactional Storage Systems", May 2022.
  Akbar is currently with Google.

- Burcu Canakci (with R. van Renesse), "Supporting Distributed Systems of Distributed Systems", May 2022.
  Burcu is currently at Microsoft Research, Cambridge.

- Cong Ding (with R. van Renesse), "Building a Scalable Shared Log", December 2020.
  Cong is currently at Confluent.
- Natacha Crooks, "A Client-Centric Approach to Transactional Datastores", December 2019.
  Recipient of the *ACM SIGOPS Dennis Ritchie Best Dissertation Award, 2020.* and runner-up for the *ACM SIGMOD Jim Gray Best Dissertation Award.*
  Natacha is an Assistant Professor of Computer Science at UC Berkeley.
- Chunzhi Su, "Bringing Modular Concurrency Control to the Next Level", December 2018.
  Chunzhi is currently at Google.
- Trinabh Gupta (with M. Walfish), "Toward practical and private online services", Summer 2017.
  Trinabh is currently an Assistant Professor of Computer Science at the University of California, Santa Barbara.
- Chao Xie, "High-performance Transactional Storage", Summer 2016.
  Chao is currently at Google.
- Manos Kapritsos, "Replicating Multithreaded Services", Fall 2014.
  Manos is currently an Assistant Professor of Computer Science at the University of Michigan, Ann Arbor.
- Yang Wang, "Separating Data from metadata for Robustness and Scalability", Summer 2014.
  Yang is currently an Associate Professor of Computer Science at The Ohio State University.
- Edmund Wong, "Raising the BAR in Cooperative Systems", Summer 2013.
  Edmund is currently VP of Engineering at Afresh, in San Francisco.
- Allen Clement (with M. Dahlin), "UpRight Fault Tolerance", Summer 2010.
  Allen is currently Director of Blockchain Engineering at Improbable.
- Amitanand Aiyer, "Alternative implementations for storage and communication abstractions in distributed systems", Summer 2010.
  Amit is currently at YugaByte
- Harry Li, "Robust Peer-to-Peer Systems", Spring 2009.
  Harry is currently CTO at Braven.
- Jeff Napper, "Robust Multithreaded Applications", Spring 2008.
  Jeff is currently CTO at TRIANGLE Capital Markets AG.
- Jean-Philippe Martin, "Byzantine Fault Tolerance and Beyond", Fall 2006.
  J.P. is currently at Lacework.
- Jian Yin (with M. Dahlin), "Volume Lease: A Scalable Consistency framework", Fall 2003.
  Jian is currently at Pacific Northwest National Laboratory.
- Evelyn Pierce, "Self-Adjusting Quorum Systems For Byzantine Fault Tolerance", Fall 2000.
  Lyn's first employment was as a postdoc at EPFL, in Lausanne.
- Sriram Rao (with H. Vin), "Egida: A Toolkit for Low-overhead Fault-Tolerance", Fall 1999.
  Sriram is currently at Microsoft Research.

Ph.D. Students Currently Under Supervision

- Shubham Chaudhary (with R. van Renesse)
- Sowmya Dharanipragada
- Ali Farahbaksh
- Youer Pu
- Florian Suri
- Yunhao Zhang (with R. van Renesse)

Master Theses Supervised

- Rohan Rebello, "Byzantine Fault Tolerant Web Applications using the UpRight Library", August 2009.
  Rohan is currently at Amazon.

Master Students Supervised

- At Cornell: Audrey Cheng, Daniel Weber, Andy Zhang, Janice Chan, Eric Feng.
- At Berkeley: David Shen
- At UT: Ravishankar Venkatadasu Chamarajnagar, Kalpana Ravinarayanan, Mike Kistler, and Salvatore Orlando.

UndergraduaeStudents whose Research is Currently Supervised

Christopher Wiley

MEng Projects Supervised

- Andrew Tsakiris
- Yan (Asta) Li

Undergraduate Honors Theses Supervised

- Jimmy Given, Dean's Honored Graduate
- Chi Ho
- Robert Ellis Michael, Dean's Honored Graduate
- Zach Ritter
- David Wetterau, Dean's Honored Graduate
- Eamon White, Dean's Honored Graduate

Undergraduate Students Supervised

- At Cornell: Liam Arzola, Benton Li, Sam Hinson, Max Charlamb, Zheng Wang, Evan Patrick, Chaska Yamane, David Chu, Evan Zhao, Ryan Yoon, Sitar Harel, Jesse Lupica.
- At UT: Hassan M. Jafri, Ali Safdar Kureshi, Carl Porth, Luke Robison, and Christopher Wiley.

- Hassan M. Jafri — Recipient, UROP Fellowship
- Ali Safdar Kureishi
- Carl Porth (co-author of "BAR Fault Tolerance for Cooperative Services" In *Proceedings of the 20th ACM Symposium on Operating Systems Principles (SOSP 2005)*).
- Luke Robison (co-author of "FlightPath: Obedience vs. Choice in Cooperative Services", In *Proceedings of the 8th Symposium on Operating System Design and Implementation (OSDI '08)*)
- Christopher Wiley

Participation in Doctoral Dissertation Committees

- Served as a member of 36 doctoral dissertation committees at UT.
- Served as member of 2 doctoral dissertation committees at Carnegie Mellon University.
- Served as as member of 3 doctoral dissertation at Cornell University.
- Served as as member of 1 doctoral dissertation at the University of Lisbon, Portugal.
- Served as as member of 2 doctoral dissertations a EPFL in Lausanne, Switzerland.
- Served as member of 1 doctoral dissertation committee at Northwestern University.
- Served as member of 1 doctoral dissertation committee at the Università della Svizzera Italiana, Lugano, Switzerland.
- Served as member of 1 doctoral dissertation committee at the University of Tromsø, Norway.
- Served as member of 1 doctoral dissertation committee at the University of California, San Diego.
- Served as a member of 1 doctoral dissertation committee at the Indian Institute of Technology.

Participation in Masters Thesis Committees

Served as a member of 7 Masters thesis committees.

G.2 Teaching

Undergraduate courses

At Cornell:

- CS 4410 Operating Systems
  Spring 2017, Spring 2019, Spring 2020, Spring 2021, Fall 2022, Fall 2023.

- CS 414 Introduction to Operating Systems
  Summer 1997.

At UT Austin:

- CS 378H Distributed Computing Honors
  Spring 2016, Spring 2015, Fall 2014.
- CS 371D Distributed Computing
  Spring 2014, Spring 2011, Fall 2009, Fall 2008, Fall 2007.
- CS 178H Introduction to Computer Science Research (with C. Lin),
  Spring 2015, Spring 2014, Spring 2013, Spring 2012, Spring 2010, Spring 2008, Spring 2007, Fall 2005.
- CS 439 Principles of Computer Systems, Spring 2013.
- CS 372H Introduction to Operating Systems Honors, Spring 2007.
- CS 372 Introduction to Operating Systems
  Fall 2006, Fall 2003, Fall 2000, Fall 1997, Fall 1996.
- NSC 110 Dean's Scholars Seminar (with C. Lin and I. Eibenstein-Alvisi), Fall 2006.
- CS 378 Introduction to Distributed Computing
  Fall 2005, Fall 2004, Spring 2002, Spring 2001, Spring 2000.

Graduate courses

At Cornell:

- CS 6411 Systems Principles, Spring 2018.
- CS 5414 Distributed Computing Principles
  Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Spring 2023.

At UT Austin:

- CS 380D Distributed Computing I
  Fall 2015, Fall 2013, Fall 2011, Spring 2011, Spring 2010, Spring 2009, Spring 2008, Spring 2006, Fall 2004, Fall 2003, Fall 2001, Fall 2000, Fall 1999, Fall 1998, Fall, 1997, Spring 1997, Spring 1996.
- CS 395T Design and implementation of Trustworthy Services, Spring 2004.
- CS 395T C0PE: Consistent 0-Administration Personal Environment, Spring 2000.
- CS 395T Hot Topics in Distributed Systems,
  Spring 1998, Fall 1996.

Additional Teaching

- "Fundamentals of Distributed Computing", Graduate course at the Università degli Studi di Bologna, November 2021.
- "The Pit and the Pendulum" Two-lecture series at Sapienza University , Rome, Italy, October 2021.
- "The Pit and the Pendulum" Two-lecture series at 1st ACM SIGOPS Summer School on Advanced Topics in Systems, Sommarøy/Tromsø, Norway, August 2018.
- "The Pit and the Pendulum" Three-lecture series at the Cornell, Maryland, and Max Planck Pre-Doctoral Research School, Saarbrücken, Germany, August 2018.
- "The Pit and the Pendulum" Three-lecture series at the Cornell, Maryland, and Max Planck Pre-Doctoral Research School, Saarbrücken, Germany, August 2017.
- "Introduction to Distributed Computing"
  Graduate course at the Università degli Studi di Modena e Reggio Emilia, July 2017.
- "Consistency and Performance in Transactional Systems"
  Joint Portugal-UT Austin Summer School in Distributed Computing, Lisbon, Portugal, September 2015.
- "Salt: Combining ACID and BASE in Distributed Databases"
  NICTA Software Systems Summer School, University of New South Wales, Sydney, Australia, February 2015.
- "Introduction to Distributed Computing"
  Undergraduate course in Distributed Computing, Jiao Tong University, Shanghai, July 2013.
- "Graduate Seminar in Distributed Computing"
  Graduate course at the Max Planck Institute for Software Systems, Saarbrücken, Germany, Fall 2012.
- "Introduction to Distributed Computing"
  Undergraduate course in Distributed Computing, Jiao Tong University, Shanghai, June 2012.
- "Reasoning with MAD Distributed Systems"
  Five-lecture series at the 2012 Summer School on Distributed Algorithms, Systems, and Programming, MSR India, Bangalore, June 2012.
- "An Introduction to Distributed Computing: Saving the world before bedtime"; and "Living in the moment in a world without clocks"
  Three-lecture series at Liberal Arts and Science Academy, Austin TX, November 2011-January 2012.
- "Dependable Distributed Computing"
  Course at the Graduate School of the University of Modena and Reggio Emilia, Italy., Summer 2011.

- "Dependable Distributed Computing"
  Course at the 18th Summer School in Computer Science, National University of Rio Cuarto, Cordoba, Argentina, February 2011.

- "Reasoning with MAD Distributed Systems"
  Tutorial at the International Conference on Distributed Computing and Networking 2011, Bangalore, India, January 2011.

- "The Long March of the Byzantine Generals"
  Course at TCS Excellence in Computer Science Week, Tata Consultancy Services, Pune, India, January 2009.

- "The Long March of BFT"
  Tutorial at the Winter School on Hot Topics in Distributed Computing, La Plagne, France, March 2008.

- "Science, Technology, and the Responsible Citizen" (with I. Eibenstein-Alvisi)
  UT Austin Telluride Association 2007 Summer Program (TASP 07).

- "Distributed Computing"
  Graduate Course, Sapienza University, Rome Italy, June 2005.

- Faculty Advisor, ACM Student Chapter, 2003-2004.

G.3 Department and University Service

At Cornell:

- August 2022 - to date: Appointment and Promotion Committee.

- 2022-2023: Faculty Recruiting Committee.

- July 2022 - June 2025: A.D. White Professor at Large Selection Committee.

- 2018-2019, 2019-2020, 2020-2021: Chair, Faculty Recruiting Committee.

- Spring 2019: CIS Dean Search Committee.

- Fall 2020-Spring 2021: Ad-hoc Committee on Academic Misconduct.

- 2019 - Present: Cornell International Council.

- 2017-2018: Chair, Colloquium Committee.

- 2016-2017, 2017-2018: Faculty Recruiting Committee.

- 2016-2017: Colloquium Committee.

- 2016 - Present: Cornell-China Faculty Committee.

At UT Austin:

- 2007- August 2016: Graduate Advisor.

- 2012-2015: Faculty Recruiting Committee.
- 2013-2015: Member of Search Committee, Molecular Biosciences Chair.
- 2011-2012: Co-chair, Undergraduate Studies Committee.
- 2001: University Committee for the selection of Outstanding Graduate Advisor award.
- Spring 2010: Chair, Undergraduate Studies Committee.
- 2009: Member, ad-hoc committee for the Promotion of Yin Zhang to Associate Professor.
- 2006-2007: Ph.D. Admissions Committee.
- 2005-2007: Turing Scholars Admissions Committee.
- 2004-2007: University Continuing Fellowship Committee.
- 2005-2006: Chair, Faculty Fellowships and Awards.
- 2005-2006: Diversity Courses Committee.
- 2004-2005: Undergraduate Studies Committee and Evaluation of Graduate Program Committee.
- 2003-2004: ACM Faculty Advisor.
- 1999-2004: Faculty Recruiting Committee.
- 1998-1999: Community Outreach and Festivals.
- 1997-1998: Ph.D. Admissions and Recruiting Committee.
- 1996-1997: External Relations Committee.
- Spring 1996: Chair Recruiting Committee, Graduate Recruiting Committee.
- 1996-1998: Helped found, fund, and organize the Laboratory for Experimental Software Systems Seminar Series (LESSSS) (with Blumofe, Dahlin, and Lin).

H Invited Talks and Seminars

H.1 Keynote addresses

- "ORDERRR! A Tale of Money, Intrigue, and Specifications", ACM/IFIP Middleware Conference, Bologna, Italy, December 2023.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", 2023 International Symposium on Distributed Computing, L'Aquila, Italy, October 2023.
- "The Pit and the Pendulum", 22nd International Symposium on Stabilization, Safety, and Security of Distributed Systems, Austin TX, November 2020.

- "The Pit and the Pendulum", 10th ACM SIGOPS Asia-Pacific Workshop on Systems (APSys 2019), Hangzhou, PRC, August 2019.
- "The Pit and the Pendulum", MSR Asia Annual Conference on Computing in the 21st Century, Beijing, PRC, October 2015.
- "Salt: Combining ACID and BASE in Distributed Databases", 5th Annual Henry Taub International TCE Conference, The Technion, Haifa, June 2015.
- "Salt: Combining ACID and BASE in Distributed Databases", 18th International Conference on Principles of Distributed Systems, Cortina D'Ampezzo, Italy, December 2014.
- "Reasoning with MAD Distributed Systems", 9th IEEE International Conference on Collaborative Computing: Networking, Applications, and Worksharing (CollaborateCom 2013), Austin, TX, October 2013.
- "Reasoning with MAD Distributed Systems", Plenary address to the 24th International Conference on Concurrency Theory (CONCUR 13) and the 10th International Conference on Quantitative Evaluations of Systems (QEST 2013), Buenos Aires, Argentina, August 2013.
- "Reasoning with MAD Distributed Systems", INForum Simposio de Informatica, Universidade Nova Lisboa, September 2012.
- "Reasoning with MAD Distributed Systems", Tidal News Stavanger Workshop on Byzantine Fault Tolerance in Large Scale Loosely Coupled Systems, August 2012.
- "Reasoning with MAD Distributed Systems", 2nd Workshop on Performance Evaluation and Reliability of Complex Systems in Quantitative Informatics, Lipari, Italy, 2011.
- "BFT we can believe in", 23rd International Symposium on Distributed Computing, Elche, Spain, 2009.
- "BAR Gossip", Workshop on Gossip-based Computer Networking, Lorentz Center, Leiden University, The Netherlands, 2006.

H.2 Distinguished Lectures

- "ORDERRR! A Tale of Money, Intrigue, and Specifications", 8th Winter Seminar Series (WSS), Sharif University of Technology, Teheran, Iran, April 2023.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Computer Science and Technology, Cambridge University, UK May 2022.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Max Plank Institute for Software Systems, Saarbrücken, Germany, May 2022.
- "Towards a High Performance Shared Log", Department of Computer Science, UiT The Arctic University of Norway, May 2022.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Computer Science, UiT The Arctic University of Norway, May 2022.

- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Informatics, Sapienza University, Rome, Italy, December 2021.
- "The Pit and the Pendulum", 20th Anniversary Research Week, Department of Computer Science, National University of Singapore, January 2019.
- "The Pit and the Pendulum", Unstoppable Speaker series, Department of Computer Science, University of Chicago, December 2016.
- "The Pit and the Pendulum", 30th Anniversary Colloquium Series, Computer Science Department, University of Connecticut, October 2016.
- "The Pit and the Pendulum", Computer Science Department, King Abdullah University for Science and Technology, Saudi Arabia, October 2016.
- "High Performance ACID via Modular Concurrency Control", Vincent Meyer Colloquium, The Technion, Haifa, Israel, June 2015.
- "Reasoning with MAD Distributed Systems", Distinguished Lecture Series, Max Plank Institute for Software Systems, Saarbrücken, Germany, October 2012.

H.3 Other invited talks and seminars

- "ORDERRR! State Machine Replication in the Age of Blockchaims", Invited Talk at the workshop in honor of Barbara Liskov, on the occasion of the awarding of the Franklin Institute Award.
- "Towards a High Performance Shared Log", Department of Department of Informatics, Sapienza University, Rome, Italy, July 2023.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Computer Science, University of Wisconsin, Madison, February 2023.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Computer Science, University of Massachusetts, Amherst, October 2022.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Electrical and Computer Engineering, The Technion, Haifa, Israel, June 2022.
- "ORDERRR! A Tale of Money, Intrigue, and Specifications", Department of Electrical Engineering and Computer Science, University of California, Berkeley, January 2022.
- "Scalog: Seamless Reconfiguration and Total Order in a Scalable Shared Log", Google, December 2021.
- "Reasoning with MAD Distributed Systems", Bertinoro International Center for Informatics, Bertinoro Italy, October 2021.
- "FLP", Invited Lecture in the graduate course on Distributed Computing, Department of Informatics, Sapienza University, Rome, Italy, October 2021.

- "The Pit and the Pendulum", Department of Informatics, Sapienza University, Rome, Italy, September 2021.
- "The Pit and the Pendulum", Department of Electrical Engineering and Computer Science, University of California, Berkeley, December 2019.
- "The Pit and the Pendulum", Department of Computer Science, KTH, Stockholm, Sweden, November 2018.
- "The Pit and the Pendulum", Department of Computer Science, Università degli Studi di Modena e Reggio Emilia, July 2017.
- "The Pit and the Pendulum", Tsinghua-Cornell Workshop on Security and Cryptography, Tsinghua University, Beijing, P.R.C., December 2016.
- "The Pit and the Pendulum", Computer Science Department, University of Southern California, Los Angeles, December 2016.
- "The Pit and the Pendulum", Computer Science Department, University of California, San Diego, September 2016.
- "The Pit and the Pendulum", Computer Science Departmental Colloquium, Cornell University, November 2015.
- "High Performance ACID via Modular Concurrency Control", Invited Talk, Department of Computer Science, University of Tromsø, Norway, May 2015.
- "Salt: Combining ACID and BASE in Distributed Databases", Invited Talk, Department of Computer Science, University of Tromsø, Norway, May 2015.
- "Reasoning with MAD Distributed Systems", Invited Talk, Department of Computer Science, University of Tromsø, Norway, May 2015.
- "Salt: Combining ACID and BASE in Distributed Databases", Qatar Computing Research Institute, Doha, Qatar, February 2015.
- "Salt", Invited Talk, Institute of Parallel and Distributed Systems, Shanghai Jiao Tong University, June 2014.
- "Salt", Invited Talk, Department of Computer Science, TU Dresden, Germany, May 2014.
- "Reasoning with MAD Distributed Systems", Invited Talk, TU Dresden, Germany, May 2014.
- "BAR Protocols for MAD Services", Invited Talk, University of Lisbon, Portugal, November 2010.
- "Reasoning with MAD Distributed Systems", Fudan University, Shanghai, China, September 2010.
- "BFT We Can Believe In", Fudan University, Shanghai, China, September 2010.

- "Reasoning with MAD Distributed Systems", Microsoft Research Asia, Beijing, China, July 2010.
- "BFT We Can Believe In", Microsoft Research Asia, Beijing, China, July 2010.
- "BFT We Can Believe In", Invited Talk, Tsinghua University, Beijing, China, June 2010.
- "Reasoning with MAD Distributed Systems", Invited Talk at the Workshop on Decentralized Mechanism Design, Distributed Computing, and Cryptography, Princeton, New Jersey, June 2010.
- "Building Robust Cooperative Services", Invited Lecture, STIET Seminar Series, Wayne University/ University of Michigan, April 2010.
- "The Long March of the Byzantine Generals", Invited Talk, Department of Computer Science, Vrije University, Amsterdam, The Netherlands, July 2008.
- "The Long March of the Byzantine Generals", Invited Talk, Department of Computer Science, University of Groningen, The Netherlands, July 2008.
- "The Long March of the Byzantine Generals", Invited Talk, Department of Computer Science, École Polytechnique Fedérale de Lausanne, Switzerland, July 2008.
- "The Long March of the Byzantine Generals", Invited Talk, Department of Computer Science, University of Udine, Italy, June 2008.
- "Zyzzyva", Departmental Colloquium, Department of Computer Science, University of Trento, Italy, May 2008.
- "BFT: The Time is Now", 4th ITI Workshop on Dependability and Security, University of Illinois, Urbana, December 2007.
- "BAR Gossip", Departmental Colloquium, Department of Computer Science, Yale University, New Haven, CT, November 2007
- "Zyzzyva", Departmental Colloquium, Department of Computer Science, The Technion, Haifa, Israel, October 2007.
- "BAR Gossip", IBM Research, Haifa, Israel, October 2007.
- "BAR Gossip", Departmental Colloquium, Department of Electrical and Computer Engineering, The Technion, Haifa, Israel, October 2007.
- "BAR: Where Distributed Computing meets Game Theory", Tutorial at the Third Latin America Symposium on Dependable Computing, Morelia, Mexico, September 2007.
- "BAR Gossip", Departmental Colloquium, Universidad Nacional Autónoma de México, Mexico City, Mexico, September 2007.
- "A Virtuous Cycle: A Personal Perspective on the Relationship between Academia, Industry, and Society at Large in the U.S.A." Invited Talk, European Genetics Foundation, Hermitage of Ronzano, Bologna, Italy, June 2007.

- "BAR Gossip", Invited Talk, University of Trento, Italy, June 2007.
- "BAR Gossip", Departmental Colloquium, University of Bologna, Italy, June 2007.
- "BAR Gossip", Departmental Colloquium, University of Modena, Italy, June 2007.
- "BAR Gossip", Departmental Colloquium, University of Rome, "La Sapienza", Italy, June 2007.
- "Reasoning with MAD Distributed Systems", 3rd ITI Workshop on Dependability and Security, University of Illinois, Urbana, December 2006.
- "Reasoning with MAD Distributed Systems", Dagstuhl Seminar 06371 "From Security to Dependability", Schloss Dagstuhl, Germany, September 2006.
- Panelist at the 2nd ITI Workshop on Dependability and Security, University of Illinois, Urbana, December 2005.
- "Reasoning with MAD Distributed Services", Computer Information Assurance and Security Invited Talk Series, San Antonio, Texas, November 2005.
- "Reasoning with MAD Distributed Services", Research Strategy Workshop, Max Plank Institute for Software Systems, Kaiserslautern, Germany, September 2005.
- "BAR Fault Tolerance for Cooperative Services", Carnegie Mellon University, Pittsburgh, PA, August 2005.
- "BAR Fault Tolerance for Cooperative Services", University of Naples "Federico II", Invited Talk, Italy, July 2005
- "Rethinking State Machine Replication", Departmental Colloquium, University of Naples "Federico II", Italy, July 2005.
- "BAR Fault Tolerance for Cooperative Services", Departmental Colloquium, University of Rome "La Sapienza", Italy, July 2005.
- "BAR Fault Tolerance for Cooperative Services", Invited talk, IBM Research, Zurich, Switzerland, July 2005.
- "Un Circolo Virtuoso: Industria e Università negli U.S.A." Workshop "Innovare per Competere", Associazione Piccole e Medie Industrie, Bologna, Italy, July 2005.
- "Byzantine Faults in a Rational World", 47th IFIP WG 10.4 Meeting, Rincón, PR, USA, January 2005.
- "Rethinking State Machine Replication", Departmental Colloquium, University of Bologna, Italy, July 2004.
- "Rethinking State Machine Replication", Departmental Colloquium, University of Trento, Italy, July 2004.

- "Rethinking State Machine Replication", Departmental Colloquium, Northwestern University, Chicago, IL, January 2004.
- "Rethinking State Machine Replication", Departmental Colloquium, University of Rome, "La Sapienza", Italy, January 2004.
- "Rethinking State Machine Replication", Departmental Colloquium, University of Modena, Italy, December 2003.
- "Rethinking State Machine Replication", Departmental Colloquium, Washington University, St. Louis, MO, November 2003.
- "Do We Have a Quorum?", Invitated Talk, AT&T Shannon Laboratory, Florham Park, New Jersey, June 2003.
- "Rollback Recovery: So Many Protocols, So Little Time", Systems Seminar, Cornell University, Ithaca, NY, April 2003.
- "Byzantine Fault-tolerance for Trustworthy Distributed Systems", Invited Lecture, Universidad Politécnica de Madrid, Madrid, Spain, April 2003.
- "Two Applications of Lightweight Fault-Tolerance", Invited Lecture, Universidad Autónoma de Madrid, Madrid, Spain, April 2003.
- "Rollback Recovery: So Many Protocols, So Little Time", Invited Lecture, Universidad Rey Juan Carlos, Madrid, Spain, April 2003.
- "Do We Have a Quorum?" Departmental Colloquium, Department of Computer Science, Johns Hopkins University, Baltimore, MD, February 2003.
- "Do We Have a Quorum?" Departmental Colloquium, Department of Computer Science, SUNY Stony Brook, Stony Brook, NY, January 2003.
- "Do We Have a Quorum?" Departmental Colloquium, Department of Computer Science, University of Massachusetts, Amherst, MA, January 2003.
- "Do We Have a Quorum?" CERCS Colloquium, College of Computing, Georgia Tech, Atlanta GA, JAnuary 2003.
- "Byzantine fault tolerance for security: does it work?", IFIP Working Group 10.4 on Dependable Computing and Fault Tolerance, Cape Verde, January 2003.
- "Practical Byzantine Quorum Systems", Distinguished Lecture Series, Cornell University, Ithaca, NY, October 2002.
- "Lightweight Fault Tolerance", DoCoMo Laboratories, San Jose, CA, September 2002.
- "WAFT: Final Report", Quorum/High Confidence Computing PI Meeting, New Orleans, LA, May 2001
- "Towards Lightweight Fault-Tolerance", Invited Lecture, Fault-Tolerance Workshop, Sandia National Laboratory, Livermore, CA, April 2001.

- "Towards Lightweight Fault-Tolerance", Invited Lecture, Jet Propulsion Laboratory, Pasadena, CA, August 2000.
- "Towards Lightweight Fault-Tolerance", Departmental Colloquium, University of Kentucky, Lexington KY, April 2000.
- "Towards Lightweight Fault-Tolerance", Departmental Colloquium, University of Catania, Italy, January 2000.
- "Egida: a Toolkit for Low-Overhead Fault-Tolerance", Invited Lecture, Los Alamos National Laboratories, NM, April 1999.
- "A one-day course in fault-tolerance", Tutorial at Qualcomm Headquarters, San Diego, CA, September 1998.
- "WAFT: Fault-tolerance for wide-area networks", Quorum/High Confidence Computing PI Meeting, San Diego, CA., July 1998
- "Understanding Message Logging", Invited Talk, Texas A&M University, College Station, TX, April 1997.

I Professional Activities

- **Member of the Editorial Board**, ACM Transactions on Computer Systems, since 2009.
- **Member of the Editorial Board**, Distributed Computing, Springer-Verlag, since 2008.
- **Founding Co-Director**, Cornell, Maryland and Max Planck Pre-Doctoral Research School, 2017 - present.
- **Member**, Eurosys Steering Committee, 2021-present
- **Member**, SOSP Steering Committee, 2020-present.
- **Member** of the the Steering Committee and of the Scientific Advisory Board, Bertinoro International Center for Informatics, 2022 - present.
- **Member**, SIGOPS CACM Research Highlight Nomination Committee, 2020-present.
- **Member** of the External Review Committtee of The Andrew and Erna Viterbi Faculty of Electrical and Computer Engineering at the Technion, Haifa, Israel, January 2023.
- **Member** of the panel for ranking publication venues in the areas of Distributed Computing and Systems Software for the Computing Research and Education Association of Australasia, 2021.
- **Founding Co-Director**, Computer Systems Education Workshop, Beijing, 2016 - 2020.
- **Member of the Editorial Board**, ACM Computing Surveys, 2005-2013.
- **Member of the Editorial Board**, IEEE Transactions on Dependable and Secure Computing, 2005-2010.

- **Member**, Computing Community Consortium Council, 2014-2017.
- **Member** of the selection committee for the Director of the Center for Resilient Computing and Cybersecurity at KAUST.
- **Member**, PODC Steering Committee, 2017-2019.
- **Member**, APSYS Steering Committee, 2014-2017.
- **Member**, CRA Committee on Best Practices for Hiring, Promotion, and Scholarship (2103-2014).
- **Member of the Scientific Advisory Board**, Bertinoro International Center for Informatics, 2001-2011.
- **Chair**, Workshop on Hot Topics in Systems Dependability (HotDep) Steering Committee, 2011-2015.
- **Co-Chair** APSys Steering Committee, 2015-2018.
- **Member**, PODC Steering Committee, August 2009-August 2011.
- **Member**, DSN Steering Committee, January 2007-January 2009.
- **Member**, NSF GENI Research Coordination Working Group.
- **Member of NSF panels**, 2017, 2012, 2010, 2010, 2007, 2006, 2005, 2004, 2003, 2002
- **Member**, European Commission Panel for FP7 Joint ICT-Security call on Protection of Critical Infrastructure, 2008.
- **Reviewer** Panel on Research Projects of National Relevance, Italian Ministry of Scientific Research (2018-2020).
- **Reviewer**, US-Israel Binational Science Foundation, 2011.
- **Reviewer**, Israel's Science Foundation, 2015, 2011, 2003, 2002.
- **Chair** of the search committee for the Editor in Chief of the ACM Transactions on Computer Systems.
- **Committee Member**, EuroSys Jochen Liedtke Young Researcher AwardAward (2020, 2019).
- **Committee Member**, PODC Doctoral Dissertation Award, 2018.
- **Committee Chair**, Eurosys Roger Needham Ph.D. Award, 2018.
- **Committee Member**, Eurosys Roger Needham Ph.D. Award (2019, 2017, 2016, 2013).
- **Member** of the committee charged with deciding on the reappointment of the Editor in Chief of IEEE TDSC, December 2014.

- **Referee** for the evaluation of research projects on behalf of the Italian Ministry of Education and Research and the evaluation of research products (VQR 2004-2010) on behalf of the Italian National Agency for the Evaluation of Research and of the University System, 20011-2012.
- **Program Co-Chair**, European Conference on Computer Systems (EuroSys 2021)
- **Member of program committee**, 14th USENIX Symposium on Operating Systems Design and Implementation (OSDI 2020).
- **Member of program committee**, 27th ACM Symposium on Operating Systems Principles (SOSP 2019).
- **Member of program Committee**, European Conference on Computer Systems (EuroSys 2019)
- **Member** 2019 Edsger W. Dijkstra Prize in Distributed Computing.
- **Member of program Committee** 22nd International Conference on Principles of Distributed Systems, (Opodis 2018)
- **Member of Program Committee**, 2018 DSN Workshop on Byzantine Consensus and Resilient Blockchains.
- **Program Co-Chair**, 26th ACM Symposium on Operating Systems Principles (SOSP 2017).
- **Member of program committee**, 1st Workshop on Security and Dependability of Critical Embedded Real-Time Systems, 2017.
- **Member of program committee**, 36th ACM Symposium on the Principles of Distributed Computing (PODC 2017).
- **Member of program committee**, European Conference on Computer Systems (EuroSys 2016).
- **Member of program committee**, 29th International Symposium on Distributed Computing (DISC 2015).
- **Participant**, CRA Leadership in Science Policy Institute (LiSPI), Washington D.C., 2015.
- **Member of program committee**, 7th ACM SIGOPS International Systems and Storage Conference (SYSTOR 2015).
- **Member of program committee**, ACM Symposium on Cloud Computing (SOCC 2014).
- **Member of program committee**, 11th USENIX Symposium on Operating Systems Design and Implementation (OSDI 2014).
- **Member of program committee**, 2014 Conference on Timely Results in Operating Systems (TRIOS 2014).
- **Member of program committee**, 2014 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.

- **Program Co-Chair**, 5th Asia-Pacific Workshop on Systems, (APSys 2014).
- **Member of program committee**, European Conference on Computer Systems (EuroSys 2014).
- **Program Co-Chair**, 7th Workshop on Large-Scale Distributed Systems and Middleware (LADIS 2013).
- **Member of program committee**, USENIX Annual Technical Conference, 2013.
- **Member of program committee**, European Conference on Computer Systems (EuroSys 2013).
- **Member of program committee**, Twenty-sixth International Symposium on Distributed Computing (DISC 2012).
- **Member of program committee**, 2012 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member of program committee**, Fourteenth International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2012).
- **Member of program committee**, 2nd ACM SIGOPS Asia-Pacific Workshop on Systems (APSys 2011).
- **Member of program committee**, 7th Workshop on Hot Topics in System Dependability (HOTDEP 11).
- **General Chair** 12th International Conference on Distributed Computing and Networking (ICDCN 2011).
- **Member of program committee** 7th USENIX Symposium on Network Systems Design and Implementation (NSDI 2010).
- **Member of program Committee** International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium (DSN 2010).
- **Chair** 2009 Edsger W. Dijkstra Prize in Distributed Computing.
- **Program Chair** 28th ACM Symposium on the Principles of Distributed Computing (PODC 2009).
- **Member of program committee**, 22nd ACM Symposium on Operating Systems Principles (SOSP 2009).
- **Member of program committee**, 8th USENIX Symposium on Operating Systems Design and Implementation (OSDI 08).
- **Program Co-Chair**, 4th Workshop on Hot Topics in System Dependability (HOTDEP 08).
- **Member of program committee**, 2008 Workshop on the Economics of Networks, Systems, and Computation (NetEcon 08).

- **Member of program committee**, 2008 Workshop on Recent Advances on Intrusion-Tolerant Systems (WRAITS 08).
- **Member of program committee**, 2008 International Conference on Distributed Computing and Networking (ICDCN).
- **Member of program committee**, 2008 International Conference on Distributed Computing Systems (ICDCS).
- **Member of program committee**, 2008 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member of program committee**, 2008 Workshop on Recent Advances on Intrusion-Tolerant Systems (WRAITS 07).
- **Program Chair**, 2007 3rd Workshop on the Future of Distributed Computing (FuDiCo III: Building MAD Distributed Systems), 2007.
- **Member of program committee**, 3rd Workshop on Hot Topics in System Dependability (HOTDEP 07).
- **Member of program committee**, 2nd Workshop on Hot Topics in Autonomic Computing (HOTAC 07).
- **Member of program committee**, 2007 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Program Chair**, 2006 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member of program committee**, 1st ACM Workshop on Scalable Trusted Computing (STC'06).
- **Member of program committee**, 25th ACM Symposium on the Principles of Distributed Computing (PODC 2006).
- **Member of program committee**, 2nd Workshop on Hot Topics in System Dependability (HOTDEP 06).
- **Member of program committee**, 2nd Workshop on High Availability of Distributed Systems (HADIS 2006).
- **Member of program committee**, 2nd IEEE Workshop on Advanced Architectures and Algorithms for Internet Delivery and Applications (AAA-IDEA 2006)
- **Member of program committee**, 20th ACM Symposium on Operating Systems Principles (SOSP 2005).
- **Member of program committee**, 2nd Latin American Symposium on Dependable Computing (LADC 2005).
- **Member of program committee**, IEEE Workshop on Advanced Architectures and Algorithms for Internet Delivery and Applications (AAA-IDEA 2005)

- **Member of program committee**, 1st Workshop on Hot Topics in System Dependability (HOTDEP 05).
- **Member of program committee**, 9th International Symposium on High Assurance Systems Engineering (HASE 2005).
- **Member of program committee**, 2005 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member**, Workshop Selection Committee, of the 2005 International Conference on Dependable Systems and Networks (DSN/FTCS).
- **Program Chair**, 2004 Workshop on Survivability: Obstacles and Solutions (FuDiCo II: S.O.S.), 2004.
- **Member of program committee**, 2004 Workshop on Secure Multiparty Computations (SMP 2004).
- **Member of program committee**, 2004 ACM SIGOPS European Workshop.
- **Member of program committee**, 2004 International Symposium on Distributed Computing (DISC 2004).
- **Publicity Chair**, Eighteenth International Symposium on Distributed Computing (DISC 2004).
- **Member of program committee**, 2004 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member of program committee**, 22nd ACM Symposium on the Principles of Distributed Computing (PODC 2003).
- **Member of program committee**, 2003 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member of program committee**, 2003 IEEE Symposium on Reliable Distributed Systems (SRDS).
- **Vice Chair for the areas of Fault-Tolerance and Security**, 2002 IEEE International Conference on Distributed Computing Systems (ICDCS).
- **Member of program committee**, 2nd Workshop on Caching, Coherence, and Consistency (WC3'02)
- **Member of program committee**, Euro-Par 2002.
- **Member of program committee**, 2002 International Conference on Dependable Systems and Networks (DSN/FTCS), DCC Symposium.
- **Member of program committee**, 2002 International Parallel and Distributed Processing Symposium (IPDPS).

- **Member of program committee**, 2001 International Symposium on Distributed Computing (DISC 2001).
- **Member of program committee**, 2001 IEEE Symposium on Reliable Distributed Systems (SRDS).
- **Member of program committee**, 2001 International Conference on Dependable Systems and Networks (DSN/FTCS).
- **Member of program committee**, 2001 IEEE Workshop on Internet Applications (WIAPP).
- **Member of program committee**, 2000 Middleware symposium in connection with ACM Symposium on the Principles of Distributed Computing.
- **Member of program committee**, 2001 IEEE International Conference on Distributed Computing Systems (ICDCS).
- **Publicity Chair**, 2001 ACM Symposium on Operating Systems Principles (SOSP 2001).
- **Member of program committee**, 2000 IEEE International Conference on Distributed Computing Systems (ICDCS).
- **Member of program committee**, 1999 IEEE Workshop on Internet Applications (WIAPP).
- **Vice Chair for the areas of Fault-Tolerance and Security**, 1999 International Conference on Distributed Computing Systems (ICDCS).
- **Local Arrangement Chair**, 1999 IEEE International Conference on Distributed Computing Systems (ICDCS).
- **Member of program committee**, 1997 IEEE International Conference on Distributed Computing Systems (ICDCS).
- **Session Chair** for (1) 2003 International Conference on Distributed Systems and Networks, (2) 2001 Symposium on Reliable Distributed Systems, (3) 2000 International Conference on Distributed Systems and Networks, (4) 1999 IEEE Workshop on Internet Applications, and (5) 1999 IEEE International Conference on Distributed Computing Systems.
- **Panelist**, 1998 IEEE 7th Heterogeneous Computing Workshop.
- **Reviewer** for the following journals: ACM Transactions on Information and System Security, ACM Transactions on Computer Systems, ACM Computing Surveys, Distributed Computing, IEEE Computer, IEEE Transactions on Computers, IEEE Transactions on Software Engineering, IEEE Transactions on Parallel and Distributed Systems, Journal of Parallel and Distributed Computing, Journal of Parallel and Distributed Technology, Information Processing Letters, Euromicro, International Journal of Computers and their Applications, Computer Journal, Reliability Engineering and System Safety.
- **Reviewer** for several conferences, including European Dependable Computing Conference (2005), Globecomm 2003, ACM Symposium on Operating Systems Principles (1999), International Workshop on Distributed Algorithms (1996), International Conference on Distributed

Computing Systems (ICDCS 1998), IEEE Symposium on Reliable Distributed Systems (2000, 1998). International Fault-Tolerant Computing Symposium (FTCS 1996, 1997, 1998, 1999, 2000), EuroPar (2001).

J Grants

- National Science Foundation, *Unlinking the (Block)chain: Scalable Byzantine-tolerant Databases*, $ 600,000, 06/15/2021-05/31/2025.
- APTOS unrestricted gift, $ 50,000, 8/2023
- Google unrestricted gift, $ 50,000, 8/2023
- Google unrestricted gift, $ 50,000, 8/2021.
- National Science Foundation, *Scalable ACID Transactions for Persistent Memory Databases*, $ 214,996, 9/30/2020-8/31/2022.
- Google unrestricted gift, $ 50,000, 8/2020.
- Google unrestricted gift, $ 50,000, 8/2019.
- Huawei, *Indicus: Unchaining Byzantine Serializable Databases*, $183,721, 2/2019.
- Google unrestricted gift, $ 50,000, 8/2018.
- National Science Foundation, *Client Centric Consistency*, $ 400,000, 9/1/2017-8/31/2020.
- Google Faculty Research Award, *Scalable Causal Consistency with No Slowdown Cascades*, $ 69,349, February 2017.
- Google Faculty Research Award, *High Performance ACID through Modular Concurrency Control*, $ 60,651, February 2016.
- Facebook Faculty Research Award, *Salt: Combining ACID and BASE in Distributed Databases*, $ 50,000, October 2014.
- Google Faculty Research Award, *Salt: Combining ACID and BASE in Distributed Databases*, $ 59,165, August 2014.
- National Science Foundation, *Salt: Combining ACID and BASE in Distributed Databases*, $903,425, 9/1/2014-8/31/2017.
- National Science Foundation, *Cloud Storage with Minimal Trust*, (with Dahlin and Walfish), $498,714, 6/1/2011-3/31/2014.
- SunGard LP, *SunGard Exascale Storage*, (with Dahlin and Walfish), $476,122, 1/1/2012-12/31/2012.
- National Science Foundation, *MAD Systems*, $ 950,000, 9/1/2009-8/31/2013.
- National Science Foundation, *BFT: The Time is Now*, $ 788,000, 9/1/2007-8/31/2010.

- National Science Foundation, *Travel and Registration Support for Third Bertinoro Workshop on Future of Distributed Computing*, $12,500, 8/01/07-7/31/08.
- National Science Foundation, *Byzantine Faults in a Rational World*, $ 569,555.
- National Science Foundation, *Byzantine Replication for Trustworthy Systems*, $ 300,000, 9/15/04-9/14/07.
- National Science Foundation, *Travel Support for Second Bertinoro Workshop on Future of Distributed Computing*, $10,000, 6/15/04-5/31/05.
- Cassa di Risparmio in Bologna, Italy. *Survivability: Obstacles and Solutions*, (with A. Panconesi at the University of Rome, "La Sapienza"), € 8,000, 2004.
- Texas Advanced Technology Program, *Byzantine Replication for Trustworthy Systems*, $150,000, 2004-2006.
- Texas Advanced Research Program, *Scalable Low-Overhead Fault-Tolerance*, (with Lin), $147,000, 2002-2004.
- Texas Advanced Technology Program, *Resource Management in Server Cluster*, (with Vin), $150,000, 2002-2004.
- Sandia National Laboratories, *Lightweight Fault-Tolerance for ASCI applications* $100,000, 2001–2003.
- Sandia National Laboratories, *Scalable Fault Tolerance through Compiler-Driven Communication Induced Checkpointing*, $122,642, 2002–2004.
- Alfred P. Sloan Research Fellowship, $40,000, 2001-2003.
- Defense Advanced Research Projects Agency, *TRIPS: The Tera-op Reliable Intelligently Adaptive Processor System.* (With Dahlin, Vin, Burger, Keckler, John, Lin, and McKinley). $3,020,000, 2001-2003.
- Defense Advanced Research Projects Agency, *WAFT: Support for Fault-Tolerance in Wide-Area Object-Oriented Systems*, (with K. Marzullo at UCSD), $ 826,910, 9/1/98 - 8/31/01.
- National Science Foundation CAREER award, *Lightweight Fault-Tolerance for Distributed Agents*, $200,000, 1998-2001.
- National Science Foundation, *Experiments in Building Distributed Applications through Compositional Programming*, (with Lin and Misra) NSF ESS Program. $ 128,452, 9/1/97 - 8/31/98.
- IBM Faculty Partnership Award *Issues in Improving Web Server Performance* (with Vin) $25,000, 2000-2001.
- IBM Faculty Partnership Award, *Resource Management in Server Clusters* (with Vin) $25,000, 2001-2002.
- IBM Equipment Grant, (with Vin) $25,000, 12/2000.

- Texas Advanced Research Program, *C0PE: Consistent 0-Administrator Personal Environment* (with Dahlin), $138,094, 2000-2002.
- Cisco University Research Program, *A Failure Model for Wide-Area Services* (with Dahlin, Vin), $ 35,400, 2001-2002
- Tivoli, Inc., *Practical Byzantine Fault Tolerance for Replicated Data Services*, $60,000, 2000-2001.
- Tivoli, Inc., *C0PE: Consistent 0-Administrator Personal Environment* (with Dahlin, Vin), $30,000, 2000.
- Tivoli, Inc., *System Support for Wide-Area Applications* (with Dahlin, Vin), $30,000, 2000.
- Dell Inc. *Designing Reliable Server Clusters*, (with Vin), LARIAT Program, $ 25,000, 1999-2000.
- Novell, Inc., unrestricted research gift (with Dahlin, Blumofe, Lin), $50,000, 1997-1998.
- University of Texas Summer Research Award, *Using Application Semantics in Optimal Message Logging: An Empirical Study*, $12,000, 1996.