

# Michael K. Reiter

Curriculum Vitae  
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## Education

[Cornell University](#), Ithaca, New York, USA.

- Ph.D., Computer Science, August 23, 1993. Thesis: [159]
- M.S., Computer Science, August 26, 1991.

[The University of North Carolina](#), Chapel Hill, North Carolina, USA.

- B.S., Mathematical Sciences with Highest Honors, May 14, 1989.  
Highest Distinction (class rank: 1 of 3476).

## Professional Experience

*Lawrence M. Slifkin Distinguished Professor* (July 2007 – present)

Department of Computer Science, University of North Carolina at Chapel Hill, USA

*Professor of Electrical & Computer Engineering and Computer Science* (October 2001 – June 2007)

*Founding Technical Director, CyLab*

Carnegie Mellon University, Pittsburgh, Pennsylvania, USA

*Director, Secure Systems Research* (September 1998 – September 2001)

Bell Laboratories, Lucent Technologies, Murray Hill, New Jersey, USA

*Principal Technical Staff Member* (June 1996 – September 1998)

*Technical Staff Member* (August 1993 – May 1996)

AT&T Labs – Research, Florham Park, New Jersey, USA (formerly AT&T Bell Laboratories)

*Adjunct Assistant Professor* (spring semester, 1998)

Department of Computer Science, New York University, New York, New York, USA

# Awards and Honors

**ACM Fellow**, named in 2008.

Awards for scientific papers

- Outstanding Paper Award. 1994 IEEE Symposium on Research in Security and Privacy (for [36]).
- Best Paper Award. 3<sup>rd</sup> USENIX Workshop on Electronic Commerce (for [52]).
- Best Paper Award. 8<sup>th</sup> USENIX Security Symposium (for [58]).
- Best Student Paper Award. 8<sup>th</sup> USENIX Security Symposium (for [58]).
- Best Paper Award. 12<sup>th</sup> ISOC Network and Distributed System Security Symposium (for [95]).

Papers invited from the following conferences to appear in journals

- 1994 IEEE Symposium on Research in Security and Privacy ([36] invited, appears as [5])
- 1995 IEEE Symposium on Security and Privacy ([38] invited, appears as [6])
- 3<sup>rd</sup> ACM Conference on Computer and Communications Security ([41] invited, appears as [7])
- 9<sup>th</sup> IEEE Computer Security Foundations Workshop ([43] invited, appears as [8])
- 17<sup>th</sup> IEEE Symposium on Reliable Distributed Systems ([54] invited, appears as [15])
- 13<sup>th</sup> ACM Conference on Computer and Communications Security ([117] invited, appears as [30])
- 13<sup>th</sup> ACM Symposium on Access Control Models and Technologies ([140] invited)

Scholarships, fellowships, and research awards

- John Motley Morehead Scholar. The University of North Carolina, 1985–89.
- United States National Science Foundation (NSF) Graduate Fellow. Cornell University, 1989–92.
- IBM Faculty Partnership Award, 2002–2003.

Excellence in Teaching Award of the Computer Science Student Association, Department of Computer Science, University of North Carolina at Chapel Hill, 2009.

## Scientific Lectures

Since 1993, Dr. Reiter has delivered numerous scientific lectures at scientific symposia, leading universities, and industrial research institutions. Below is a sample of noteworthy invited lectures.

- 6<sup>th</sup> Annual International Workshop on Selected Areas in Cryptography (Kingston, Ontario, Canada). August 10, 1999.
- 2<sup>nd</sup> Conference on Security in Communications Networks (Amalfi, Italy). September 17, 1999.
- 1999 Frontiers in Engineering Symposium, National Academy of Engineering (Irvine, CA, USA). October 14, 1999.
- Keynote address, 2002 Internet Society Symposium on Network and Distributed System Security (San Diego, CA, USA). February 8, 2002.
- Department colloquium, Department of Computer Science, Yale University (New Haven, CT, USA). April 3, 2003.
- Information Security Institute Seminar, Johns Hopkins University (Baltimore, MD, USA). April 8, 2003.
- 2<sup>nd</sup> NJITES Symposium on Cybersecurity and Trustworthy Software, Stevens Institute of Technology (Hoboken, NJ, USA). April 28, 2003.
- Triangle Computer Science Distinguished Lecture, hosted by Duke University, North Carolina State University, and the University of North Carolina (North Carolina, USA). March 1, 2004.
- Conference on Future Directions in Informatics, School of Informatics, Indiana University (Bloomington, IN, USA), September 11, 2004.
- Keynote address, 7<sup>th</sup> International Conference on Information Security and Cryptology (Seoul, Korea). December 2, 2004.
- Distinguished Lecture, Computer Science Department, Stony Brook University (Stony Brook, NY, USA), March 11, 2005.
- Department colloquium, Department of Computer Science, Columbia University (New York, NY, USA). April 6, 2005.
- Institute for Security Technology Studies, Dartmouth College (Hanover, NH, USA). May 19, 2005.
- Advanced Networks Colloquium, hosted by the Center for Satellite and Hybrid Communication Networks, the Department of Electrical and Computer Engineering, and the Institute for Systems Research at the University of Maryland (College Park, MD, USA). September 16, 2005.
- Cornell Computer Science 40<sup>th</sup> Anniversary Symposium, Cornell University (Ithaca, NY, USA). October 1, 2005.
- Distinguished Lecture, Information Trust Institute, University of Illinois at Urbana-Champaign (Urbana, IL, USA). January 18, 2006.
- Information Science & Technology Colloquium, NASA Goddard Space Flight Center (Greenbelt, MD, USA). February 8, 2006.
- ZISC Information Security Colloquium, ETH Zurich (Zurich, Switzerland). May 30, 2006.
- Information Security Institute Seminar, Johns Hopkins University (Baltimore, MD, USA). November 29, 2006.
- Department colloquium, Department of Computer Science, University of North Carolina (Chapel Hill, NC, USA). December 13, 2006.
- Second Workshop of the EU-US Summit Series on Cyber Trust: System Dependability and Security, hosted by the Information Trust Institute, University of Illinois at Urbana-Champaign (Monticello, IL, USA). April 26, 2007.
- Keynote address, 12<sup>th</sup> European Symposium on Research in Computer Security (Dresden, Germany). September 24, 2007.

- Distinguished Lecture, Department of Computer and Information Science, University of Pennsylvania (Philadelphia, PA, USA). October 9, 2007.
- A 30-Year Perspective on Replication (Monte Verita, Ascona, Switzerland). November 7, 2007.
- 3<sup>rd</sup> Bertinoro Ph.D. School on Security of Wireless Networking (Bertinoro, Italy). July 27 – August 1, 2008.
- Distinguished Lecturer Seminar Series, Computer Science Department, University of California at Irvine (Irvine, CA, USA). November 21, 2008.
- Keynote address, 10<sup>th</sup> International Symposium on Stabilization, Safety, and Security of Distributed Systems (Detroit, MI, USA). November 23, 2008.
- School of Electrical and Computer Engineering, Purdue University (West Lafayette, IN, USA). May 7, 2009.
- 7th International Conference on Applied Cryptography and Network Security (Paris-Rocquencourt, France). June 4, 2009.
- Keynote address, 29<sup>th</sup> International Conference on Distributed Computing Systems (Montreal, Canada). June 25, 2009.
- IFIP WG11.3 Conference on Data and Application Security (Montreal, Canada). July 12, 2009.
- Distinguished Speaker, Cray Colloquium Lecture Series, Department of Computer Science and Engineering, University of Minnesota (Minneapolis, MN, USA). October 19, 2009.
- Center for Applied Cybersecurity Research, Indiana University (Bloomington, IN, USA). December 3, 2009.
- Distinguished Colloquium, School of Informatics and Computing, Indiana University (Bloomington, IN, USA). December 4, 2009.
- Distinguished Lecture, Departments of Electrical & Computer Engineering and Computer Science, Iowa State University (Ames, IA, USA). March 12, 2010.

# Professional Service

## Journal editorships

- *ACM Transactions on Information and System Security*  
**Associate Editor** (January 2000–July 2004)  
**Editor-in-Chief** (August 2004–December 2008)
- *Communications of the ACM*  
**Editorial Board member** (November 2007–present)
- *IEEE Transactions on Software Engineering*  
**Associate Editor** (2000–2004)
- *International Journal on Information Security*  
**Associate Editor** (2001–2006)
- *IEEE Transactions on Dependable and Secure Computing*  
**Associate Editor** (2004)  
 Note: Position resigned in 2005 due to other obligations.
- *IEEE Internet Computing*  
 Guest Editor, special issue on Survivable Distributed Systems (November/December 1999 issue)  
 Guest Editor, special issue on Homeland Security (November/December 2004 issue)

## Conference program committees

\* = *Program Chair or Co-Chair*; + = *Program Subcommittee Chair*

ACM Conference on Computer and Communications Security (CCS)	1996, 1997, 1998*, 1999, 2001, 2002, 2003, 2008
ACM Conference on Electronic Commerce	1999, 2003, 2005*
ACM Conference on Information, Computer and Communications Security	2006
ACM Conference on Principles of Distributed Computing (PODC)	1999, 2002, 2005
ACM SIGCOMM Conference	2008
Asia Conference on Computer and Communication Security	2008
CQRE—Secure Networking Conference	1999
Cryptographer's Track, RSA Conference	2001
DARPA Information Survivability Conference and Exposition	2003
European Symposium on Research in Computer Security (ESORICS)	2010
IEEE Computer Security Foundations (CSF)	1995, 1996, 2000, 2004
IEEE Symposium on Reliable Distributed Systems (SRDS)	2005
IEEE Symposium on Security and Privacy	1994, 1995, 1996, 1997, 1998, 1999*, 2000*, 2004, 2005, 2010
IEEE Workshop on Resource Sharing in Massively Distributed Systems	2002
IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)	2006, 2007, 2008, 2009

IFIP International Working Conference on Dependable Computing for Critical Applications (DCCA)	1999
IFIP Working Conference on Communications and Multimedia Security	1999
Information Hiding Workshop	2001, 2002, 2004*
Information Security Conference (ISC)	2003, 2004
Information/System Survivability Workshop	2001
International Conference on Distributed Computing Systems (ICDCS)	1999, 2001, 2002, 2005 <sup>†</sup> , 2008, 2010
International Conference on Information and Communications Security	2002
International Conference on Principles of Distributed Systems	2005
International Symposium on Distributed Computing (DISC)	1999, 2004, 2007
International Workshop on Electronic Commerce	2001
International Workshop on Security	1999
Network and Distributed System Security Symposium (NDSS)	2003*, 2004*, 2007, 2009, 2010
Privacy Enhancing Technologies Workshop (PET)	2006, 2007
USENIX Security Symposium	1998, 2002, 2006, 2008, 2009
USENIX Workshop on Hot Topics in Security (HotSec)	2009
Workshop on Intrusion Tolerant Systems	2002
Workshop on Secure Network Protocols	2008
World Wide Web Conference (WWW)	2006

#### Other conference service

- Publicity Chair, 4th ACM Conference on Computer and Communications Security (1997)
- Vice Chair, 1997 IEEE Symposium on Security and Privacy
- General Chair, 1998 IEEE Symposium on Security and Privacy
- General Chair, 8<sup>th</sup> ACM Conference on Computer and Communications Security (2001)
- Steering Committee, ACM Conference on Computer and Communications Security (1999–2002)

#### IEEE Technical Committee on Security and Privacy

- Chair, Subcommittee on Conferences (1998)
- **Vice Chair** (2000–2001)
- **Chair** (2002–2003)

Board of Visitors, [Software Engineering Institute](#), Carnegie Mellon University (July 2003–Aug 2009).

Central Selection Committee, [The Morehead-Cain Scholars Program](#), 2009.

#### U.S. Government service

- INFOSEC Science and Technology Study Group of the INFOSEC Research Council (1997–98)
- DARPA Study Panel on Self-Healing Systems (2001–02)
- Chair, DARPA Workshop on Self-Regenerative Systems (October 2002)
- Chair, National Science Foundation Principal Investigator Meeting (August 2004)
- Organizing Committee, National Science Foundation Study on Grand Challenges in Distributed Computing (July–September 2005)

- NSF Global Environment for Network Innovations (GENI)
  - Distributed Services Working Group (December 2005 – May 2007)
  - Planning Group (March 2006 – May 2007)
- IARPA NICIAR Study on Safely Taking on New Executable Stuff of Uncertain Provenance (May 2008 – August 2008)
- Department of Commerce Emerging Technology and Research Advisory Committee (September 2008 onward)

# Scientific Publications

## Publications in refereed journals

- [1] M. K. Reiter and K. P. Birman. [How to securely replicate services](#). *ACM Transactions on Programming Languages and Systems* 16(3):986–1009, May 1994.
- [2] M. Blaze, J. Lacy, T. London, and M. Reiter. **Issues and mechanisms for trustworthy systems: Creating transparent mistrust**. *AT&T Technical Journal* 73(5):30–39, September 1994.
- [3] M. K. Reiter, K. P. Birman, and R. van Renesse. [A security architecture for fault-tolerant systems](#). *ACM Transactions on Computer Systems* 12(4):340–371, November 1994.
- [4] M. K. Reiter and L. Gong. [Securing causal relationships in distributed systems](#). *The Computer Journal* 38(8):633–642, Oxford University Press, 1995. Preliminary version appears as [35].
- [5] M. K. Reiter. [A secure group membership protocol](#). *IEEE Transactions on Software Engineering* 22(1):31–42, January 1996. Preliminary version appears as [36].
- [6] M. K. Franklin and M. K. Reiter. [The design and implementation of a secure auction service](#). *IEEE Transactions on Software Engineering* 22(5):302–312, May 1996. Preliminary version appears as [38].
- [7] M. K. Reiter, M. K. Franklin, J. B. Lacy, and R. N. Wright. **The  $\Omega$  key management service**. *Journal of Computer Security* 4(4):267–287, IOS Press, 1996. Preliminary version appears as [41].
- [8] D. Malkhi and M. Reiter. **A high-throughput secure reliable multicast protocol**. *Journal of Computer Security* 5:113–127, IOS Press, 1997. Preliminary version appears as [43].
- [9] D. Malkhi and M. Reiter. [Byzantine quorum systems](#). *Distributed Computing* 11(4):203–213, 1998. Preliminary version appears as [46].
- [10] M. K. Reiter and A. D. Rubin. [Crowds: Anonymity for web transactions](#). *ACM Transactions on Information and System Security* 1(1):66–92, November 1998.
- [11] M. K. Reiter and S. G. Stubblebine. [Resilient authentication using path independence](#). *IEEE Transactions on Computers* 47(12):1351–1362, December 1998. Preliminary version appears as [45].
- [12] V. Anupam, A. Mayer, K. Nissim, B. Pinkas, and M. K. Reiter. [On the security of pay-per-click and other web advertising schemes](#). *Computer Networks* 31:1091–1100, 1999. Also appears as [57].
- [13] M. K. Reiter and S. G. Stubblebine. [Authentication metric analysis and design](#). *ACM Transactions on Information and System Security* 2(2):138–158, May 1999. Preliminary version appears as [47].
- [14] D. Malkhi, M. K. Reiter, and A. Wool. [The load and availability of Byzantine quorum systems](#). *SIAM Journal of Computing* 29(6):1889–1906, 2000. Preliminary version appears as [49].
- [15] D. Malkhi and M. K. Reiter. [An architecture for survivable coordination in large distributed systems](#). *IEEE Transactions on Knowledge and Data Engineering* 12(2):187–202, March/April 2000. Combines and extends [53][54].
- [16] D. Malkhi and M. K. Reiter. [Secure execution of Java applets using a remote playground](#). *IEEE Transactions on Software Engineering* 26(12):1197–1209, December 2000. Preliminary version appears as [51].
- [17] R. De Prisco, D. Malkhi, and M. K. Reiter. [On  \$k\$ -set consensus problems in asynchronous systems](#). *IEEE Transactions on Parallel and Distributed Systems* 12(1):7–21, January 2001. Preliminary version appears as [56].
- [18] L. Alvisi, D. Malkhi, E. Pierce, and M. K. Reiter. [Fault detection for Byzantine quorum systems](#). *IEEE Transactions on Parallel and Distributed Systems* 12(9):996–1007, September 2001. Preliminary version appears as [55].
- [19] D. Malkhi, M. K. Reiter, A. Wool, and R. N. Wright. [Probabilistic quorum systems](#). *Information and Computation* 170(2): 184–206, November 1, 2001. Preliminary version appears as [50].

- [20] P. Samarati, M. K. Reiter and S. Jajodia. [An authorization model for a public key management service](#). *ACM Transactions on Information and System Security* 4(4):453–482, November 2001.
- [21] F. Monrose, M. K. Reiter, and S. G. Wetzel. [Password hardening based on keystroke dynamics](#). *International Journal of Information Security* 1(2):69–83, February 2002. Preliminary version appears as [60].
- [22] P. Felber and M. K. Reiter. [Advanced concurrency control in Java](#). *Concurrency and Computation: Practice and Experience* 14(4):261–285, Wiley, 2002.
- [23] D. Malkhi, Y. Mansour and M. K. Reiter. [Diffusion without false rumors: On propagating updates in a Byzantine environment](#). *Theoretical Computer Science* 299:289–306, 2003. Preliminary version appears as [59].
- [24] D. Malkhi, M. Merritt, M. K. Reiter, and G. Taubenfeld. [Objects shared by Byzantine processes](#). *Distributed Computing* 16(1):37–48, 2003. Preliminary version appears as [62].
- [25] P. MacKenzie and M. K. Reiter. [Networked cryptographic devices resilient to capture](#). *International Journal of Information Security* 2(1):1–20, November 2003. Preliminary version appears as [65].
- [26] P. MacKenzie and M. K. Reiter. [Delegation of cryptographic servers for capture-resilient devices](#). *Distributed Computing* 16(4):307–327, December 2003. Preliminary version appears as [72].
- [27] P. MacKenzie and M. K. Reiter. [Two-party generation of DSA signatures](#). *International Journal of Information Security* 2(3–4):218–239, August 2004. Preliminary version appears as [70].
- [28] X. Wang and M. K. Reiter. [A multi-layer framework for puzzle-based denial-of-service defense](#). *International Journal of Information Security*, August 2007. Combines and extends [76][92].
- [29] M. K. Reiter and A. Samar. [Quiver: Consistent object sharing for edge services](#). *IEEE Transactions on Parallel and Distributed Systems* 19(7):878–889, July 2008.
- [30] X. Wang, Z. Li, J. Y. Choi, J. Xu, M. K. Reiter, and C. Kil. [Fast and black-box exploit detection and signature generation for commodity software](#). *ACM Transactions on Information and System Security* 12(2), 2008. Preliminary version appears as [117].
- [31] J. M. McCune, A. Perrig and M. K. Reiter. [Seeing-is-believing: Using camera-phones for human-verifiable authentication](#). *International Journal on Security and Networks* 4(1–2):43–56, 2009. Preliminary version appears as [98].
- [32] D. Gao, M. K. Reiter and D. Song. [Beyond output voting: Detecting compromised replicas using HMM-based behavioral distance](#). *IEEE Transactions on Dependable and Secure Computing* 6(2):96–110, April–June 2009. Preliminary version appears as [115].
- [33] X. Wang and M. K. Reiter. [Using web-referral architectures to mitigate denial-of-service threats](#). *IEEE Transactions on Dependable and Secure Computing*. To appear. Preliminary version appears as [116].

#### Symposium, conference, and workshop publications

- [34] M. K. Reiter, K. P. Birman, and L. Gong. [Integrating security in a group oriented distributed systems](#). In *Proceedings of the 1992 IEEE Symposium on Research in Security and Privacy*, pages 18–32, May 1992. Also appears as [159].
- [35] M. K. Reiter and L. Gong. [Preventing denial and forgery of causal relationships in distributed systems](#). In *Proceedings of the 1993 IEEE Symposium on Research in Security and Privacy*, pages 30–40, May 1993.
- [36] M. K. Reiter. [A secure group membership protocol](#). In *Proceedings of the 1994 IEEE Symposium on Research in Security and Privacy*, pages 176–189, May 1994. Received **Outstanding Paper Award**.
- [37] M. K. Reiter. [Secure agreement protocols: Reliable and atomic group multicast in Rampart](#). In *Proceedings of the 2<sup>nd</sup> ACM Conference on Computer and Communication Security*, pages 68–80,

- November 1994.
- [38] M. K. Franklin and M. K. Reiter. [The design and implementation of a secure auction service](#). In *Proceedings of the 1995 IEEE Symposium on Security and Privacy*, pages 2–14, May 1995.
  - [39] M. K. Franklin and M. K. Reiter. **Verifiable signature sharing**. In *Advances in Cryptology—EUROCRYPT '95* (Lecture Notes in Computer Science 921), pages 50–63, Springer-Verlag, 1995.
  - [40] M. K. Reiter. **The Rampart toolkit for building high-integrity services**. In *Theory and Practice in Distributed Systems* (Lecture Notes in Computer Science 938), pages 99–110, Springer-Verlag, 1995.
  - [41] M. K. Reiter, M. K. Franklin, J. B. Lacy, and R. N. Wright. [The  \$\Omega\$  key management service](#). In *Proceedings of the 3<sup>rd</sup> ACM Conference on Computer and Communications Security*, pages 38–47, March 1996.
  - [42] D. Coppersmith, M. Franklin, J. Patarin, and M. Reiter. **Low-exponent RSA with related messages**. In *Advances in Cryptology – EUROCRYPT '96* (Lecture Notes in Computer Science 1070), pages 1–9, Springer-Verlag, 1996.
  - [43] D. Malkhi and M. Reiter. [A high-throughput secure reliable multicast protocol](#). In *Proceedings of the 9<sup>th</sup> IEEE Computer Security Foundations Workshop*, pages 9–17, June 1996.
  - [44] M. K. Franklin and M. K. Reiter. [Fair exchange with a semi-trusted third party](#). In *Proceedings of the 4<sup>th</sup> ACM Conference on Computer and Communications Security*, pages 1–6, April 1997.
  - [45] M. K. Reiter and S. G. Stubblebine. [Path independence for authentication in large-scale systems](#). In *Proceedings of the 4<sup>th</sup> ACM Conference on Computer and Communications Security*, pages 57–66, April 1997.
  - [46] D. Malkhi and M. Reiter. [Byzantine quorum systems](#). In *Proceedings of the 29<sup>th</sup> ACM Symposium on Theory of Computing*, pages 569–578, May 1997.
  - [47] M. K. Reiter and S. G. Stubblebine. [Toward acceptable metrics of authentication](#). In *Proceedings of the 1997 IEEE Symposium on Security and Privacy*, pages 10–20, May 1997.
  - [48] D. Malkhi and M. Reiter. [Unreliable intrusion detection in distributed computations](#). In *Proceedings of the 10<sup>th</sup> IEEE Computer Security Foundations Workshop*, pages 116–124, June 1997.
  - [49] D. Malkhi, M. Reiter, and A. Wool. [The load and availability of Byzantine quorum systems](#). In *Proceedings of the 16<sup>th</sup> ACM Symposium on Principles of Distributed Computing*, pages 249–257, August 1997.
  - [50] D. Malkhi, M. Reiter, and R. Wright. [Probabilistic quorum systems](#). In *Proceedings of the 16<sup>th</sup> ACM Symposium on Principles of Distributed Computing*, pages 267–273, August 1997.
  - [51] D. Malkhi, M. Reiter, and A. Rubin. [Secure execution of Java applets using a remote playground](#). In *Proceedings of the 1998 IEEE Symposium on Security and Privacy*, pages 40–51, May 1998.
  - [52] M. K. Reiter, V. Anupam, and A. Mayer. **Detecting hit shaving in click-through payment schemes**. In *Proceedings of the 3<sup>rd</sup> USENIX Workshop on Electronic Commerce*, pages 155–166, August 1998. Received **Best Paper Award**.
  - [53] D. Malkhi and M. Reiter. [Survivable consensus objects](#). In *Proceedings of the 17<sup>th</sup> IEEE Symposium on Reliable Distributed Systems*, pages 271–279, October 1998.
  - [54] D. Malkhi and M. Reiter. [Secure and scalable replication in Phalanx](#). In *Proceedings of the 17<sup>th</sup> IEEE Symposium on Reliable Distributed Systems*, pages 51–58, October 1998.
  - [55] L. Alvisi, D. Malkhi, L. Pierce, and M. K. Reiter. [Fault detection for Byzantine quorum systems](#). In *Proceedings of the 7<sup>th</sup> IFIP Working Conference on Dependable Computing for Critical Applications*, pages 357–371, January 1999.
  - [56] R. De Prisco, D. Malkhi, and M. K. Reiter. [On  \$k\$ -set consensus problems in asynchronous systems](#). In *Proceedings of the 18<sup>th</sup> ACM Symposium on Principles of Distributed Computing*, pages 257–265, May 1999.
  - [57] V. Anupam, A. Mayer, K. Nissim, B. Pinkas, and M. K. Reiter. **On the security of pay-per-click and other web advertising schemes**. In *Proceedings of the 8<sup>th</sup> International World Wide Web*

- Conference, May 1999.
- [58] I. Jermyn, A. Mayer, F. Monrose, A. Rubin, and M. K. Reiter. **The design and analysis of graphical passwords**. In *Proceedings of the 8<sup>th</sup> USENIX Security Symposium*, pages 1–14, August 1999. Received **Best Paper Award**.
  - [59] D. Malkhi, Y. Mansour, and M. K. Reiter. [On diffusing updates in a Byzantine environment](#). In *Proceedings of the 18<sup>th</sup> IEEE Symposium on Reliable Distributed Systems*, pages 134–143, October 1999.
  - [60] F. Monrose, M. K. Reiter, and S. Wetzel. [Password hardening based on keystroke dynamics](#). In *Proceedings of the 6<sup>th</sup> ACM Conference on Computer and Communications Security*, pages 73–82, November 1999.
  - [61] L. Alvisi, D. Malkhi, E. Pierce, M. K. Reiter, and R. N. Wright. [Dynamic Byzantine quorum systems](#). In *Proceedings of the 30<sup>th</sup> IEEE/IFIP International Conference on Dependable Systems and Networks*, pages 283–292, June 2000.
  - [62] D. Malkhi, M. Merritt, M. K. Reiter, and G. Taubenfeld. **Objects shared by Byzantine processes**. In *Proceedings of the 14<sup>th</sup> International Symposium on Distributed Computing* (Lecture Notes in Computer Science 1914), pages 345–359, Springer, October 2000.
  - [63] R. M. Arlein, B. Jai, M. Jakobsson, F. Monrose, and M. K. Reiter. [Privacy-preserving global customization](#). In *Proceedings of the 2000 ACM Conference on Electronic Commerce*, pages 176–184, October 2000.
  - [64] G. Chockler, D. Malkhi, and M. K. Reiter. [Backoff protocols for distributed mutual exclusion and ordering](#). In *Proceedings of the 21<sup>st</sup> International Conference on Distributed Computing Systems*, pages 11–20, April 2001.
  - [65] P. MacKenzie and M. K. Reiter. [Networked cryptographic devices resilient to capture](#). In *Proceedings of the 2001 IEEE Symposium on Security and Privacy*, pages 12–25, May 2001.
  - [66] F. Monrose, M. K. Reiter, Q. Li and S. Wetzel. [Cryptographic key generation from voice](#). In *Proceedings of the 2001 IEEE Symposium on Security and Privacy*, pages 202–213, May 2001.
  - [67] D. Malkhi, M. K. Reiter, D. Tulone, and E. Ziskind. [Persistent objects in the Fleet system](#). In *Proceedings of the 2<sup>nd</sup> DARPA Information Survivability Conference and Exposition (DISCEX II)*, Vol. II, pages 126–136, June 2001.
  - [68] F. Monrose, M. K. Reiter, Q. Li and S. Wetzel. **Using voice to generate cryptographic keys**. In *Proceedings of 2001: A Speaker Odyssey, The Speaker Recognition Workshop*, pages 237–242, June 2001.
  - [69] R. Canetti, Y. Ishai, R. Kumar, M. K. Reiter, R. Rubinfeld, and R. N. Wright. [Selective private function evaluation with applications to private statistics](#). In *Proceedings of the 20<sup>th</sup> ACM Symposium on Principles of Distributed Computing*, August 2001.
  - [70] P. MacKenzie and M. K. Reiter. **Two party generation of DSA signatures**. In *Advances in Cryptology—CRYPTO 2001* (Lecture Notes in Computer Science 2139), pages 137–154, August 2001.
  - [71] D. Malkhi, M. K. Reiter, O. Rodeh and Y. Sella. [Efficient update diffusion in Byzantine environments](#). In *Proceedings of 20<sup>th</sup> IEEE Symposium on Reliable Distributed Systems*, pages 90–98, October 2001.
  - [72] P. MacKenzie and M. K. Reiter. [Delegation of cryptographic servers for capture-resilient devices](#). In *Proceedings of the 8<sup>th</sup> ACM Conference on Computer and Communications Security*, pages 10–19, November 2001.
  - [73] M. Jakobsson and M. K. Reiter. **Discouraging software piracy using software aging**. In *Proceedings of the 2001 Workshop on Security and Privacy in Digital Rights Management*, November 2001.
  - [74] Y. Xie, D. O'Hallaron and M. K. Reiter. [A secure distributed search system](#). In *Proceedings of the 11<sup>th</sup> IEEE International Symposium on High Performance Distributed Computing*, pages 321–330, July 2002.

- [75] F. Monrose, M. K. Reiter, Q. Li, D. P. Lopresti, and C. Shih. **Toward speech-generated cryptographic keys on resource constrained devices.** In *Proceedings of the 11<sup>th</sup> USENIX Security Symposium*, pages 283–296, August 2002.
- [76] X. Wang and M. K. Reiter. [Defending against denial-of-service attacks with puzzle auctions.](#) In *Proceedings of the 2003 IEEE Symposium on Security and Privacy*, pages 78–92, May 2003.
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