

INRIA & Sorbonne-Université–LIP6
4, place Jussieu (26-00/211)
75252 Paris Cedex 05, France

<https://lip6.fr/Marc.Shapiro/>
<mailto:Marc.Shapiro@acm.org>
tel.: +33 1 4427 7093

PhD 1980, ENSEEIHT-INP, Toulouse. Habilitation 2002, UPMC.

KEYWORDS

Large Scale Distributed Systems, Conflict-Free Replicated Data Types, Data Replication and Consistency, Partition-Tolerant Replication, Disconnected and Co-Operative Work, Garbage Collection, Fine-Grain Concurrent Algorithms.

PROFESSIONAL EXPERIENCE

2005–Today Senior Research Scholar, then Distinguished Research Scholar, Delys group (LIP6 & Inria), Paris (France).
1999–2005 Senior Researcher, leading Dist. Sys. Group, Microsoft Research, Cambridge (UK).
1986–1999 Senior Research Scholar, Inria, leading SOR group, Rocquencourt (France).
1993–1994 Visiting Scientist, Cornell University, Ithaca (NY, USA)
1985 Software engineer, Inria, Rocquencourt (France).
1984–1985 Software Engineer, GIPSI SM90 (Inria-Bull-CNET).
1982–1985 Junior Scientist, CMIRH, Paris (France).
1980–1981 Visiting Scientist, Mass. Institute of Technology, Cambridge (MA, USA).

SERVICE AND RESPONSIBILITIES (SELECTION)

2017–2021 VP for research, *Société informatique de France (SIF)*
2016–2022 Principal Investigator, ANR project RainbowFS
2012–2018 Member European Research Council panel PE6 (Computer Science)
2013–2016 Principal Investigator, European project SyncFree.
2010–2014 Principal investigator, ANR Blanc project ConcoRDanT
2009–2015 Member ACM Europe Council.
2004–2008 Founder, chair of EuroSys.
1995–1999 Vice-chair of ACM SIGOPS.
1996–2000 Founder and chair, Association ACM-SIGOPS de France (ASF).

TEN SELECTED PUBLICATIONS

- I. Toumlilt, P. Sutra, and M. Shapiro. Highly-available and consistent group collaboration at the edge with Colony. In *Int. Conf. on Middleware*, pages 336–351, Québec, Canada, December 2021.
- A. Z. Tomsic, M. Bravo, and M. Shapiro. Distributed transactional reads: the strong, the quick, the fresh & the impossible. In *Int. Conf. on Middleware*, pages 120–133, Rennes, France, December 2018.
- D. Devaki Akkoorath, A. Z. Tomsic, M. Bravo, Z. Li, T. Crain, A. Bieniusa, N. Preguiça, and M. Shapiro. Cure: Strong semantics meets high availability and low latency. In *Int. Conf. on Distributed Comp. Sys. (ICDCS)*, pages 405–414, Nara, Japan, June 2016.
- A. Gotsman, H. Yang, C. Ferreira, M. Najafzadeh, M. Shapiro. ‘Cause I’m Strong Enough: Reasoning about consistency choices in distributed systems. In *Symp. on Principles of Prog. Lang. (POPL)*, St. Petersburg, FL, USA, January 2016.
- M. Zawirski, N. Preguiça, S. Duarte, A. Bieniusa, V. Balesgas, M. Shapiro. Write fast, read in the past: Causal consistency for client-side applications. In *Int. Conf. on Middleware*, Vancouver, BC, Canada, December 2015.
- V. Balesgas, N. Preguiça, R. Rodrigues, S. Duarte, C. Ferreira, M. Najafzadeh, M. Shapiro. Putting consistency back into eventual consistency. In *Euro. Conf. on Comp. Sys. (EuroSys)*, Bordeaux, France, April 2015.
- L. Gidra, G. Thomas, J. Sopena, M. Shapiro, N. Nguyen. *NumaGiC: a garbage*

collector for big data on big NUMA machines. In *Int. Conf. on Archi. Support for Prog. Lang. and Systems (ASPLOS)*, Istanbul, Turkey, March 2015.

M. Saeida Ardekani, P. Sutra, M. Shapiro. *Non-Monotonic Snapshot Isolation: scalable and strong consistency for geo-replicated transactional systems.* Symp. on Reliable Dist. Sys. (SRDS), Braga, Portugal, October 2013.

M. Shapiro, N. Preguiça, C. Baquero, M. Zawirski. *Conflict-free replicated data types.* Stab., Safety, and Security of Dist. Sys. (SSS), Oct. 2011.

V. Vafeiadis, M. Herlihy, T. Hoare, M. Shapiro. *Proving correctness of highly-concurrent linearisable objects.* Principles & Practice Parallel Prog. (PPoPP), March 2006.

V. Abrossimov, M. Rozier, M. Shapiro. *Generic virtual memory management for operating system kernels.* Symp. on Op. Sys. Principles (SOSP), December 1989.

M. Shapiro. *Structure and encapsulation in distributed systems: the Proxy Principle.* In *Int. Conf. on Distributed Comp. Sys. (ICDCS)*, pages 198–204, Cambridge, MA, USA, May 1986.

PUBLICATIONS

Journals: Bulletin TC Data Engineering 2016, Bulletin EATCS 2011, Computing Surveys 2005, Computing Systems 1989, Dagstuhl 2023, Distributed Systems Online 2006, IJAIT 2005, Operating System Review 2010, 2011, 2015, SIGACT News 2014, Techniques et Sciences Informatiques 1984, 1987, 1997.

Book chapters: LNCS 1752 2000, IEEE CS Press 1984, Encyclopædia of Database Systems 2009×2, 2014×2, 2017×3, 2018×2.

International Conferences: ASPLOS 2013, 2015, C++ Conference 1987, 1990, CollaborateCom 2007, CoopIS 2003, 2007, Compas 2017, 2022, Concur 2016, DAIS 2006, DISC–WDAG 1995, 2004, 2012, ECOOP 1989, 1998, ESOP 2020, Euromicro 1980, Euro-Par 2008, 2013, 2023, EuroSys 2015, FTCS 1981, FTDCS 1995, Group 2016, HotStorage 2021, I-WOOS 1990, 1991, 1992, 1993, ICIN 2020, ICCS 1988, ICDCS 1982, 1986, 1994, 1996, 2009, 2016, CSGW 2016, IPDPS 2025, IWMM–ISMM 1992, 1995, LADIS 2009, 2014×3, 2015, Middleware 2014, 2015, 2018, 2021, MDM 2004, 2007, NCA 2019, 2020 (Best Paper), Netys 2022, OOPSLA 1995, 2004, OPODIS 2004, 2014, OSDI 1994, PLDI 1998, PLOS 2011 (best paper), PaPoC–PaPEC 2015×2, 2016×3, 2024, 2025, PODC 1992, 2001, 2005, POPL 2016, POS 1989, 1992, 1994, 1998, 2000, 2000, PPoPP 2006, SAC 2011, SIGOPS EW 1986, 1988, 1992, 1995, 2004, 2000, SOSP 1989, SRDS 1991, 2011, 2013, 2015, SYSTOR 2015, SSS 2011, VMCAI 2018.

INVITED TALKS

ASD/ASF Winter School 2016, ARMS-CC 2014, BDA 2002, CAV-EC² 2013, CSD&M 2014, Chem. Conc. Pg. 2011, 2015, CodeMesh 2015, Concur 2016, Critéo 2016, CurryOn 2015, Dagstuhl 2008, 2012, 2013, 2014, 2015, 2017, DARE 2023, dotScale 2018, ECOOP Summer School 2015, EMDC 2012, EPFL 2012, ETHZ 2007, Euro. Masters in Distr. Comp. 2012, Google 2011×2, IBM 2006, 2014, ICACCE 2018, ICFP 2006, Inria-EPFL 2016, Inria 2017, LADIS 2015, 2016, 2017, KTH 2016, MPI-SWS 2010, Mascots 2014, Monte Verità Replication-30 2007, OPODIS 2013, Paris-Descartes 2016, PaPoC 2017, Royal Holloway U. 2015, Technion 2014×2, U. Chalmers 2012, U. Darmstadt 2013, U. Joseph Fourier 2016, U. Nova 2015, U. Paris Descartes 2016, U. Savoie Mont-Blanc 2019, Verico 2011, WetICE 2011, WOS 2019.

SOFTWARE AND PATENTS

Seven patents.

Software: Colony (2018–2021), AntidoteDB (2014–2021), SwiftCloud (2012–2014), CRDTs (2008–today), Treedoc (2008–2011), Telex (2007–2012), Rufis (2003), IceCube (2000–2003), PerDis (1996–2000), Larchant (1993–1996), SSPC (1990–1994), SOS (1985–1990), Chorus virtual memory (1986–1988), STL dynamic arrays (1987), Emacs BibTeX mode (1987), Unix V7 sockets (1984).