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### PROFESSIONAL EXPERIENCE

- 2003–Pres. Professor, Dept. of Computer Science, University of Houston.  
1997–1998 Visiting Associate Professor, Dept. of Computer Science, University of California, Santa Cruz.  
1988–2003 Associate Professor, Dept. of Computer Science, University of Houston.  
1982–1988 Assistant Professor, Dept. of CSE, University of California, San Diego.  
1979–1982 Assistant Professor, Dept. of Computer Science, Purdue University.

### EDUCATION

- 1981 Ph. D. in EECS, University of California, Berkeley.  
1975 License et Maîtrise en Informatique, Facultés Universitaires de Namur, Belgium.  
1972 Diplôme d'Etudes Approfondies en Informatique, Université de Paris VI, France.  
1970 Ingénieur Civil Chimiste, Université Libre de Bruxelles, Belgium.

### RECENT PUBLICATIONS

1. V. Estrada-Galiñanes, J.-F. Pâris and P. Felber, Simple Data Entanglement Layouts with High Reliability, *Proceedings of the 35<sup>th</sup> International Performance of Computers and Communication Conference (IPCCC 2016)*, Las Vegas, NV, Dec. 2016.
2. J.-F. Pâris, T. Schwarz, S. J. and D. D. E. Long, Improving Disk Array Reliability Through Faster Repairs, *Proceedings of the 35<sup>th</sup> International Performance of Computers and Communication Conference (IPCCC 2016)*, Las Vegas, NV, Dec. 2016.
3. T. Schwarz, S. J., A. Amer, T. Kroeger, E. L. Miller, D. D. E. Long and J.-F. Pâris, Reliable Storage at Exabyte Scale, *Proc. 24<sup>th</sup> International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2016)*, London, GB. (**Best paper award**)
4. J.-F. Pâris and D.D. E. Long, Pirogue, a lighter dynamic version of the Raft distributed consensus algorithm, *Proc. 34<sup>th</sup> International Performance of Computers and Communication Conference (IPCCC 2015)*, Nanjing, China, Dec. 2015 (**Best paper runner-up award**).
5. T. Schwarz, S. J., D. D. E. Long and J.-F. Pâris, Triple failure tolerant storage systems using only exclusive-or parity calculations, *Proc. 21<sup>st</sup> IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2015)*, Zhangjiajie, China, Nov. 2015.
6. T. Schwarz, S. J., A. Amer and J.-F. Pâris, Combining Low IO-Operations During Data Recovery with Low Parity Overhead in Two-Failure Tolerant Archival Storage, *Proc. 21<sup>st</sup> IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2015)*, Zhangjiajie, China, Nov. 2015.
7. J.-F. Pâris and D. D. E. Long, Reducing the Energy Footprint of a Distributed Consensus Algorithm, *Proc. 11<sup>th</sup> European Dependable Computing Conference (EDCC 2015)*, Paris, France, Sep. 2015.
8. J.-F. Pâris, A. Amer, D.D. E. Long, T. Schwarz, S. J. Self-Repairing Disk Arrays, *Proc. 5<sup>th</sup> International Workshop on Adaptive Self-tuning Computing Systems*, Jan. 2015, Amsterdam, NL.

9. J.-F. Pâris, T. Schwarz, S. J., A. Amer and D. D. E. Long , Protecting RAID Arrays Against Unexpectedly High Disk Failure Rates, *Proc. 20<sup>th</sup> IEEE Pacific Rim International Symposium on Dependable Computing* (PRDC 2014), Singapore, pp. 68–75, Nov. 2014.
10. J.-F. Pâris, D. D. E. Long and T. Schwarz, S. J. Zero-Maintenance Disk Arrays, *Proc. 19<sup>th</sup> IEEE Pacific Rim International Symposium on Dependable Computing* (PRDC 2013), Vancouver, BC, Canada, pp. 140–141, Dec. 2013.
11. T. Schwarz, S. J., D. D. E. Long and J.-F. Pâris, Reliability of Disk Arrays with Double Parity, *Proc. 19<sup>th</sup> IEEE Pacific Rim International Symposium on Dependable Computing* (PRDC 2013), Vancouver, BC, pp. 108–117, Canada, Dec. 2013.
12. J.-F. Pâris, D. D. E. Long and W. Litwin, Three-Dimensional Redundancy Codes for Archival Storage, *Proc. 21<sup>st</sup> International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems* (MASCOTS 2013), San Francisco, CA, pp. 328–332, Aug. 2013.
13. H.-W. Kao, J.-F. Pâris, T. Schwarz, SJ and Darrell D. E. Long, A Flexible Simulation Tool for Estimating Data Loss Risks in Storage Arrays, *Proc. 29<sup>th</sup> IEEE Conference on Massive Data Storage* (MSST '13), Long Beach, CA, pp. 1–5, May 2013.
14. T. Schwarz, S. J., I. Corderí, D. D. E. Long and J.-F. Pâris, Simple, Exact Placement of Data in Containers, *Proc. International Conference on Computing, Networking and Communications* (ICNC 2013), San Diego, CA, pages 978–982, Jan. 2013.
15. J.-F. Pâris, T. Schwarz, S. J., A. Amer and D. D. E. Long, Highly Reliable Two-Dimensional RAID Arrays for Archival Storage, *Proc. 31<sup>st</sup> International Performance of Computers and Communication Conference* (IPCCC 2012), Austin, TX, pages 324–331, Dec. 2012.
16. J.-F. Pâris and A. Amer, Delayed Chaining: A Practical P2P Solution for Video-on-Demand, *Proc. 8th International Workshop on Networking Issues in Multimedia Entertainment* (NIME '12), Munich, Germany, July 2012.
17. J.-F. Pâris, A. Amer and T. J. Schwarz. Low-Redundancy Two-Dimensional RAID Arrays, *Proc. International Conference on Computing, Networking and Communications* (ICNC 2012), Maui, HI, pages 507–511, Jan.-Feb. 2012.
18. J.-F. Pâris, A. Nagar, A. Amer and T. J. Schwarz. Pay-To-Play: An Incentive Mechanism for Chaining Protocols for Video Streaming, *Proc. 10<sup>th</sup> International Information and Telecommunication Technologies Conference* (I2TS 2011), Florianopolis, SC, Brazil, Dec. 2011.
19. A. Amer, J. Holliday, D. D. E. Long, E. L. Miller, J.-F. Pâris and T. J. Schwarz. Data Management and Layout for Shingled Magnetic Recording, *IEEE Transactions on Magnetics*, Vol.: 47, N<sup>o</sup> 10, Oct. 2011.
20. A. Amer, D. Long, E. L. Miller, J.-F. Pâris and T. J. Schwarz. Data Management and Layout for Shingled Magnetic Recording (invited talk and digest), *IEEE International Magnetics Conference* (InterMag 2011), Taipei, Taiwan, Apr. 2011.
21. J.-F. Pâris, A. Amer and D. D. E. Long, Accelerated Chaining: A Better Way to Harness Peer Power in Video-on-Demand Applications, *Proc. 26<sup>th</sup> ACM Symposium on Applied Computing* (SAC 2011), Taichung, Taiwan, Mar. 2011.

#### PH. D. STUDENTS GRADUATED

1. Raja Kushalnagar. *Optimizing Video Presentations for Deaf and Hard of Hearing Participants in Mainstream Classrooms*, UH, 2010.
2. Purvi Shah. *Scaling Content-Based Services Using P2P Technology*, UH, 2008.
3. Jinsuk Baek. *Scalable Approaches for Tree-Based Reliable Multicast*, UH, 2004.
4. José-Carlos Martínez-Vélez. *The Design of a CORBA Replication Service for Fault-Tolerant Distributed Object Systems*, UH, 2001.

5. Darrell D. E. Long. *The Management of Replication in a Distributed System*, UCSD, 1988.
6. J. F. Cigas. *The Design and Evaluation of a Block-Level Disk Cache Using Pseudofiles*, UCSD, 1988.

### **M. S. STUDENTS GRADUATED**

1. Hsu-Wan Kao. *Proteus: A portable simulation program for estimating data loss risks in disk arrays*, UH, 2012.
2. Sara Chaarawi. *Using Storage Class Memories to Improve the Reliability of RAID Arrays*, UH, 2010.
3. Samir Sachdev. *A Realistic Evaluation of Data Survivability of Fault-Tolerant Disk Arrays*, UH, 2009.
4. Rong Tao. *The Variable Bit-Rate Fixed-Delay Broadcasting Protocol*, UH, 2008.
5. Jawad Ur Rasheed. *A Performance Evaluation of Peer to Peer Multimedia Streaming Systems*, UH, 2008.
6. Santosh Kulkarni. *Involving Clients in Distribution of Videos on Demand*, UH, 2006.
7. Reshma Khatri. *Using Artificial Neural Networks to Select the Best File Access Prediction Heuristic*, UH, 2006.
8. Natarajan Ravichandran. *Making Early Predictions of File Accesses*, UH, 2005.
9. Andrew Fritz. *The Maille Security Protocol Suite: A Novel Protocol Suite for Authentication and Authorization in Large Distributed System*, UH, 2004.
10. Wenjing Chen. *A Two-Expert Approach for File System Reference Prediction*, UH, 2004.
11. Lei Yu. *A Restrained Hierarchical Stream Merging Protocol for Video-on-Demand*, UH, 2003.
12. Chong Seng Yeo. *A Group-Based File Predictor*, UH, 2003.
13. Cyrus D. Vesuna. *An Empirical Study of Harmonic Broadcasting Protocols for Video-on-Demand*, UH, 2003.
14. Lyle D. Wincentsen. *An Assessment of the Practicality of VoIP Using Gateways*, UH, 2003.
15. Karthik Thirumalai. *Tabbycat: An Inexpensive Scalable Server for Video-on-Demand*, UH, 2003.
16. Jing-Yu Lee. *A Modified Hierarchical Stream Merging Protocol for Video-on-Demand*, UH, 2003.
17. Qiong Zhang. *A Channel-Based Heuristic Distribution Protocol for Video-on-Demand*, UH, 2002.
18. Gary A. S. Whittle. *A Hybrid Scheme for File System Reference Prediction*, UH, 2002.
19. Saurabh Mohan. *Characterizing the Bandwidth Requirements of Compressed Videos*, UH, 2001.
20. Pei-Fen You. *A Dynamic Fast-Pagoda Broadcasting Protocol for Video-on-Demand*, UH, 2000.
21. Hong Xue. *An Interactive Broadcasting Protocol for Video-on-Demand*, UH, 2000.
22. Qing Wang. *A Dynamic Proactive Broadcasting Protocol for Video-on-Demand*, UH, 1999.
23. Gaurav Bahadur. *Improving the Write Performance of Redundant Disk Arrays*, UH, 1997.
24. Leroy L. Mattingly, Jr. *DPCTools++: A Framework of C++ Classes for Distributed Parallel Computing*, UH, 1995.
25. Qun Rose Wang. *Managing Replicated Data in the Presence of Network Partitions*, UH, 1995.
26. Reza Hussein. *AGENT: Another Global accEss Network Transparent Distributed File System*, UH, 1994.
27. Chris M. Cavers. *Don't Turn Off That Machine: Caching Read-Only Files on Idle Workstations*, UH, 1993.
28. Jonathan F. Humphreys. *A Distributed Revision Control System*, UH, 1993.
29. Perry K. Sloope. *A Realistic Evaluation of the Effect of Network Partitioning on the Management of Replicated Data*, UH, 1991.
30. Ravi G. Kathuria. *Fast Practical Protocols for the Management of Replicated Data*, UH, 1991.

31. Ignacio Valdes. *Efficient Caching of Temporary Files*, UH, 1990.

#### **RECENT PROFESSIONAL ACTIVITIES**

- Program Committee, 22<sup>nd</sup> International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2014)
- Program Committee, 30<sup>th</sup> IEEE Conference on Massive Data Storage (MSST '14)
- Program Committee, Symposium on Data Storage Technology and Applications (DSTA), a track of the International Conference on Computing, Networking and Communications (ICNC '13).
- Program Committees, 19<sup>th</sup> to 32<sup>th</sup> IEEE International Performance, Computing, and Communications Conferences (IPCCC 2000 to 2013).
- Program Committee, XXXVI Conferencia Latinoamericana de Informática (CLEI XXXVI).
- Program Committee, 2008 and 2009 IEEE International Conference on Networking, Architecture, and Storage (NAS 2008 and 2009).
- Program Committee, Tenth International Conference on Web Information Systems Engineering (WISE 2009).
- Program Committees, 8<sup>th</sup> to 14<sup>th</sup> and 16<sup>th</sup> International Conferences on Computer Communications and Networks (ICCCN 2000 to 2005 and 2007).
- Program Committees, EUROMEDIA 2001 to 2009 and 2011 to 2013 Conferences.
- Program Committees, 1<sup>st</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 6<sup>th</sup> International Workshops on Storage Network Architecture and Parallel I/Os (SNAPI 2004, 2007, 2008 and 2010).
- Program Committee, 14<sup>th</sup> International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2006).
- Program Committees, 2005 and 2006 Mexican International Conferences on Computer Science (ENC 2005 and 2006).
- Program Committees, 4<sup>th</sup> to 10<sup>th</sup> International Information and Telecommunication Technologies Symposia (I2TS 2005 to 2011).

#### **PROFESSIONAL SOCIETIES**

- Senior member, Institute of Electrical and Electronics Engineers: Computer Society.
- Senior member, Association for Computing Machinery, Special Interest Groups on Operating Systems (SIGOPS), Measurement and Evaluation (SIGMETRICS), Management of Data (SIGMOD) and Multimedia (SIGMM).