Curriculum Vitae (updated: 05/2009)

CHRISTINO TAMON

Department of Mathematics and Computer Science, Clarkson University
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EDUCATION

1993-1996	Ph.D., Computer Science, University of Calgary, AB, Canada (advisor: N.H. Bshouty)
1990-1992	M.Sc., Computer Science, University of Toronto, ON, Canada (advisor: C.W. Rackoff)
1986-1990	B.Sc., Computer Science and Applied Mathematics, University of Calgary, AB, Canada

EMPLOYMENT

2002-	*Associate Professor* Department of Mathematics and Computer Science, Clarkson University
1996-2002	*Assistant Professor* Department of Mathematics and Computer Science, Clarkson University
1993-1996	*Teaching and Research Assistant* Department of Computer Science, University of Calgary
1991	*Teaching Assistant and Library Staff* Department of Computer Science, University of Toronto
1990	*Summer Undergraduate Researcher* Department of Computer Science, University of Calgary

ACTIVITIES AND SERVICE

- Program Committee member:
  - *18th International Conference on Algorithmic Learning Theory*, Sendai, Japan, 2007.
  - *19th Conference on Computational Learning Theory*, Carnegie Mellon University, Pittsburgh, PA, 2006.
  - *14th International Conference on Algorithmic Learning Theory*, Sapporo, Japan, 2003.
  - *12th International Conference on Algorithmic Learning Theory*, Washington D.C., 2001.
  - *13th ACM Conference on Computational Learning Theory*, Stanford University, Palo Alto, CA, 2000.
- Editorial Board member:

  "Algorithms" (open-access journal)
- Reviewer and Referee:

  `Journals`:
  Computational Complexity, *SIAM Journal on Discrete Mathematics*, *SIAM Journal on Computing*, *Quantum Information and Computation*, *Information and Computation*, *Information Processing Letters*, *International Journal of Quantum Information*, *Journal of Computer and System Sciences*, *Journal of Machine Learning Research*, *Machine Learning*, *New Journal of Physics*, *Theoretical Computer Science*, *Theory of Computing*.

  `Conferences`:
  13th ACM Conference on Computational Learning Theory (COLT 2000), *12th International Conference on Algorithmic Learning Theory* (ALT 2001), *16th Conference on Computational*

Learning Theory (COLT 2003), *14th International Conference on Algorithmic Learning Theory* (ALT 2003), *26th ACM Symposium on Theory of Computing* (STOC 2004), *18th International Conference on Algorithmic Learning Theory* (ALT 2007), *41st ACM Symposium on Theory of Computing* (STOC 2009), *20th International Conference on Algorithmic Learning Theory* (ALT 2009).

- Grant Proposal Reviewer:

  National Science Foundation (Theory of Computing program), *National Science Foundation* (Post-Doctoral Graduate program), *US-Israel Binational Science Foundation*

- Faculty advisor:
  - Mathematics *Research Experience for Undergraduates* (REU), State University of New York (SUNY) at Potsdam, New York (2000-present)
  - Clarkson University Ronald McNair Scholarship Program (for under-represented groups and first-generation college students from low-income backgrounds)
  - Clarkson University Honors Program

FUNDING

- NSA grant H98230-09-1-0098, *Summer Research Experience for Undergraduates in Mathematics*, PI: Christino Tamon (joint with Joel Foisy, SUNY Potsdam). Duration: 2 years. Amount: $18,137.00
- NSA grant H98230-07-1-0085, *Research Experience for Undergraduates in Mathematics*, PI: Joel Foisy; coPI: Christino Tamon. Amount: $25,853.00
- NSF grant DMS-0646847, *Mathematics Research Experience for Undergraduates*, PI: Joel Foisy; coPI: Christino Tamon. Amount: $58,402.00
- NSF grant DMS-0353050, *Undergraduate Mathematics Summer Research Institute*, PI (current): Joel Foisy; coPI: Christino Tamon. Amount: $163,922.00
- NSF grant DMR-0121146, *Center for Modeling of Quantum Dynamics, Relaxation and Decoherence in Solid-state Physics for Information-technology Applications*, PI: Vladimir Privman; co-PIs: Ming-Cheng Cheng, M. Lawrence Glasser, Dima Mozyrsky, and Christino Tamon. Amount: $1,054,000.00
- NSF grant DMS-0097113, *Undergraduate Mathematics Summer Research Institute*, PI: Kazem Mahdavi; coPI: Christino Tamon. Amount: $162,039.00

AWARDS

- *Distinguished Teaching Award*, Clarkson University, 2009.
- *Kristin Craig Memorial Faculty Recognition Award*, Honors Program, Clarkson University, 2008.
- *Outstanding New Teacher Award*, Clarkson University, 2000.

PUBLICATIONS

`Book Chapter`

1. Christino Tamon, "Learning with the Aid of an Oracle," *Encyclopedia of Algorithms*, M.-Y. Kao, editor, Springer (2008), 423-425.

`Journal articles`

1. Ricardo Javier Angeles Canul, Rachael Norton, Michael Opperman, Christopher Paribello, Matthew Russell, and Christino Tamon, "On quantum perfect state transfer in weighted join graphs," accepted to appear in *International Journal of Quantum Information*.

2. Ana Best, Markus Kliegl, Shawn Mead-Gluchacki, and Christino Tamon, "Mixing of quantum walks on generalized hypercubes," *International Journal of Quantum Information* **6**(6):1135-1148, 2008.

3. William Adamczak, Kevin Andrew, Leon Berger, Dillon Ethier, Peter Hernberg, Jennifer Lin, and Christino Tamon, "Non-uniform mixing of quantum walk on cycles," *International Journal of Quantum Information* **5**(6):781-793, 2007.

4. William Carlson, Allison Ford, Elizabeth Harris, Julian Rosen, Christino Tamon, and Kathleen Wrobel, "Universal Mixing for Quantum Walk on Graphs," *Quantum Information and Computation* **7**(8):738-751, 2007.

5. Peter Lo, Siddharth Rajaram, Diana Schepens, Daniel Sullivan, Christino Tamon, and Jeffrey Ward, "Mixing of Quantum Walk on Circulant Bunkbeds," *Quantum Information and Computation* **6**(4&5):370-381, 2006.

6. Leonid Fedichkin, Dmitry Solenov, and Christino Tamon, "Mixing and Decoherence in Continuous-Time Quantum Walks on Cycles," *Quantum Information and Computation* **6**(3):263-276, 2006.

7. Nader H. Bshouty, Jeffrey C. Jackson, and Christino Tamon, "Exploring learnability between exact and PAC," *Journal of Computer and System Sciences* **70**(4):471-484, 2005.

8. Daniel ben-Avraham, Erik M. Bollt, and Christino Tamon, "One-dimensional continuous-time quantum walks," *Quantum Information Processing* **3**(1-5):295-308, 2004.

9. Nader H. Bshouty, Jeffrey C. Jackson, and Christino Tamon, "More Efficient PAC-learning of DNF with Membership Queries under the Uniform Distribution," *Journal of Computer and System Sciences* **68**(1):205-234, 2004.

10. Amir Ahmadi, Ryan Belk, Christino Tamon, and Carolyn Wendler, "On Mixing in Continuous-Time Quantum Walks on Some Circulant Graphs," *Quantum Information and Computation* **3**(6):611-618, 2003.

11. Nader H. Bshouty, Jeffrey C. Jackson, and Christino Tamon, "Uniform-Distribution Attribute Noise Learnability," *Information and Computation* **187**(2):277-290, 2003.

12. Nader H. Bshouty, Christino Tamon, and David K. Wilson, "Learning Matrix Functions over Rings," *Algorithmica* **22**(1/2):91-111, 1998.

13. Nader H. Bshouty, Christino Tamon, and David K. Wilson, "On Learning Width Two Branching Programs," *Information Processing Letters* **65**(4):217-222, 1998.

14. Nader H. Bshouty, Christino Tamon, and David K. Wilson, "On Learning Decision Trees with Large Output Domains," *Algorithmica* **20**(1):77-100, 1998.

15. Nader H. Bshouty and Christino Tamon, "On the Fourier Spectrum of Monotone Functions," *Journal of the Association for Computing Machinery* **43**(4):747-770, 1996.

16. Nader H. Bshouty, Richard E. Cleve, Ricard Gavaldà, Sampath Kannan, and Christino Tamon, "Oracles and Queries that are Sufficient for Exact Learning," *Journal of Computer and System Sciences* **52**(3):421-433, 1996.

`Conference articles`

1. Jeffrey C. Jackson, Christino Tamon, and Tomoyuki Yamakami, "Quantum DNF Learnability Revisited," *Proceedings of 8th International Conference on Computing and Combinatorics*, Oscar H. Ibarra and Louxin Zhang (eds.), Lecture Notes in Computer Science **2387**, Springer (2002), 595-604.

2. Nader H. Bshouty, Jeffrey C. Jackson, and Christino Tamon, "Exploring learnability between exact and PAC," *Proceedings of the 15th Annual Conference on Computational Learning Theory*, Jyrki Kivinen and Robert A. Sloan (eds.), Lecture Notes in Computer Science **2375**, Springer (2002), 244-254.

3. Christino Tamon and Tomoyuki Yamakami, "Quantum Computation Relative to Oracles," *Proceedings of 2nd Conference on Unconventional Models of Computation*, Ioannis Antoniou, Cristian S. Calude, and Michael J. Dinneen (eds.), Springer (2000), 273-288.

4. Christino Tamon and Jie Xiang, "On the Boosting Pruning problem," *Proceedings of 11th European Conference on Machine Learning*, Ramon Lopez de Mantaras and Enric Plaza (eds.), Lecture Notes in Computer Science **1810**, Springer (2000), 404-412.

5. Nader H. Bshouty, Jeffrey C. Jackson, and Christino Tamon, "More Efficient PAC-Learning of DNF with Membership Queries under the Uniform Distribution," *Proceedings of the 12th Annual Conference on Computational Learning Theory*, ACM Press (1999), 286-295.

6. Nader H. Bshouty, Jeffrey C. Jackson, and Christino Tamon, "Uniform-Distribution Attribute Noise Learnability," *Proceedings of the 12th Annual Conference on Computational Learning Theory*, ACM Press (1999), 75-80.

7. Francesco Bergadano, Nader H. Bshouty, Christino Tamon, and Stefano Varricchio, "On Learning Branching Programs and Small Depth Circuits," *Proceedings of 3rd European Conference on Computational Learning Theory*, Shai Ben-David (ed.), Lecture Notes in Computer Science **1208**, Springer (1997), 50-161.

8. Nader H. Bshouty, Christino Tamon, and David K. Wilson, "Learning Matrix Functions over Rings," *Proceedings of 3rd European Conference on Computational Learning Theory*, Shai Ben-David (ed.), Lecture Notes in Computer Science **1208**, Springer (1997), 27-37.

9. Nader H. Bshouty, Christino Tamon, and David K. Wilson, "On Learning Width Two Branching Programs," *Proceedings of the 9th Annual Conference on Computational Learning Theory*, ACM Press (1996), 224-227.

10. Nader H. Bshouty, Christino Tamon, and David K. Wilson, "On Learning Decision Trees with Large Output Domains," *Proceedings of the 8th Annual Conference on Computational Learning Theory*, ACM Press (1995), 190-197.

11. Nader H. Bshouty and Christino Tamon, "On the Fourier Spectrum of Monotone Functions," *Proceedings of the 27th Annual ACM Symposium on the Theory of Computing*, ACM Press (1995), 219-228.

12. Nader H. Bshouty, Richard E. Cleve, Sampath Kannan, and Christino Tamon, "Oracles and Queries that are Sufficient for Exact Learning," *Proceedings of the 7th Annual ACM Conference on Computational Learning Theory*, ACM Press (1994), 130-139.

POSTER AND TALKS

- "Mixing of Quantum Walks on Graphs," Carleton-Ottawa Combinatorics and Optimization seminar, Carleton University, Ottawa, Ontario, Canada, Oct 16, 2009.
- "Mixing of Quantum Walks on Graphs," Department of Mathematics, Binghamton University, Binghamton, NY, May 5, 2009.
- "On Quantum Walks on Graphs," Session on Nanostructures for Quantum Device Technology, *79th ACS Colloid and Surface Science Symposium*, Potsdam, NY, June 12-15, 2005.
- "A note on graphs resistant to quantum uniform mixing," *7th Workshop on Quantum Information Processing* (QIP 2004), Waterloo, Canada, January 17, 2004.

- "Non-uniform Mixing in Continuous Quantum Walks," Department of Physics, Clarkson University, November 8, 2002.
- "Quantum DNF Learnability Revisited," *8th International Conference on Computing and Combinatorics* (COCOON 2002), Singapore, August 17, 2002.
- "How Fast Can DNF Be Learned?" School of Information Technology and Engineering, University of Ottawa, March 22, 2002.
- "Cryptographic Algorithms in Machine Learning," Department of Computer Science, University of Vermont, February 28, 2002.
- "Uniform-distribution Attribute Noise Learnability," *12th ACM Conference on Computational Learning Theory* (COLT 1999), Santa Cruz, CA, 1999.
- "Probabilistic Methods in Graph Theory," Department of Mathematics, State University of New York at Potsdam, Summer 1999.
- "The KM Algorithm Revisited," Department of Computer Science, University of Calgary, 1998.
- "Fourier Analysis in Machine Learning," joint tutorial with Jeffrey C. Jackson, *10th ACM Conference on Computational Learning Theory* (COLT 1997) and *14th International Conference on Machine Learning* (ICML 1997), Vanderbilt University, Nashville, TN, 1997.
- "On the Fourier Spectrum of Monotone Functions," *27th ACM Symposium on Theory of Computing* (STOC 1995), Las Vegas, NV, 1995.

TEACHING

Introductory Computer Science, Symbolic Computation, Computer Organization, Automata Theory and Formal Languages, Programming Languages, Compiler Construction, Cryptography, Computer Algorithms, Machine Learning, Quantum Computation, Advanced Topics in Cryptography

EXTRA-CURRICULARS

- Volunteer worker, *Potsdam Food Co-Op*, Potsdam, NY.
- Faculty advisor, *Clarkson Chess Club*.