

Biographical Sketch Kenneth W. Regan

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Professional Preparation

- Princeton University (Princeton, NJ USA), Mathematics, B.A. *summa cum laude*, 1981
- Oxford University (Oxford, UK), Mathematics, D.Phil., 1986.
- Oxford University (Oxford, UK), Junior Research Fellow, 1984–1986 and 1988
- Cornell University (Ithaca, NY USA), Postdoctoral Research Visitor, Mathematical Sciences Institute, 1986–1987 and 1988–1989.

Appointments

- 1999–: Associate Professor, Department of Computer Science and Engineering, University at Buffalo (official change after department merged with Computer Engineering).
- 1995–1999: Associate Professor, Department of Computer Science, University at Buffalo
- 1989–1995: Assistant Professor, Department of Computer Science, University at Buffalo

List of Relevant Products

1. K. Regan and A. Chakrabarti and C. Guan, “Algebraic and Logical Emulations of Quantum Circuits,” accepted to the Springer LNCS journal *Transactions on Computational Science*, November 2011.
2. R. Lipton and K. Regan, *Quantum Algorithms via Linear Algebra*, MIT Press, Dec. 2014.
3. R. Lipton, C. Guan, and K. Regan, “Status of an Attack on Factoring Via Polynomials,” improved journal version of [R. Lipton, ANTS 1994].
4. R. Lipton and K. Regan and A. Rudra, “Symmetric functions capture general functions,” in the proceedings of MFCS 2011, Springer LNCS **6907**, 2011, pp 436–447.
5. “Grilling Quantum Circuits,” post on Gödel’s Lost Letter blog, <https://rjlipton.wordpress.com/2012/07/08/grilling-quantum-circuits/> Includes link to earlier draft paper with Chakrabarti which is now worked into the paper above.

List of Other Significant Products

1. S. Kalyanasundaram and K. Regan, “Exact Computation of the Number of Accepting Paths of an NTM,” October 2017, submitted to CALDAM 2017.
2. S. Kalyanasundaram, R. Lipton, K. Regan, and F. Shokrieh, “Improved Simulation of Nondeterministic Turing Machines,” *Theoretical Computer Science* **417**, Feb. 2012, 66–73 (special issue for the MFCS 2010 conference).
3. M. Crasmaru and C. Glasser and K. Regan and S. Sengupta, “A protocol for serializing unique strategies,” in “Proceedings of MFCS’04,” Lecture Notes in Computer Science 3153, pages 660-672, Springer-Verlag, 2004. /.../pdf/CGRS04.pdf
4. S. Aida and M. Crasmaru and K. Regan and O. Watanabe, “Games with Uniqueness Properties,” *Theoretical Computer Science* **37** (2004), 29–47. /.../pdf/ACRW03.pdf
5. T. Biswas and K. Regan, “Approximation of Function Evaluation Over Sequence Arguments via Specialized Data Structures,” *Theoretical Computer Science*, special issue for the AAIM 2014 conference (published online at <http://www.sciencedirect.com/science/article/pii/S0304397515003114>).

Synergistic Activities

- Collaboration on Richard Lipton’s weblog “Gödel’s Lost letter and P=NP,” <http://rjlipton.wordpress.com/> with full partner status since 1/2011, including over 130 joint articles (each 3–7 pages) and 80 singly authored.
- Advisor and past member of the World Chess Federation (FIDE) Anti-Cheating Committee.
- Public website <http://www.cse.buffalo.edu/~regan/chess/fidelity/> focusing on anti-cheating use of a separate research project on human decision-making at chess.
- National media coverage including NPR Weekend Edition Saturday (6/21/14 with Scott Simon), Slate’s “The Gist” (9/2/14 with Mike Pesca), “Data Skeptic” (5/22/15 with Kyle Polich), Chess Life Magazine (June 2014 cover story by Howard Goldowsky), New York Times (3/20/12 Science Tuesday, page D3, by Dylan McClain).
- Joint author of three book chapters with Eric W. Allender and Michael C. Loui for the CRC *Algorithms and Computation Theory Handbook*, 1999 and 2009 eds.