

Curriculum Vitae Asst. Prof. Hartmut Klauck

Contact

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Education and Academic Appointments

1995	Diplom (Master) in Computer Science “with distinction”, University of Paderborn
1995-2000	Graduate Student at the University of Frankfurt (Supervisor: Prof.Dr. Georg Schnitger)
2000	PhD received from the University of Frankfurt “with honors”
2000-2002	Postdoctoral researcher at CWI in Amsterdam
2002-2003	Member (Postdoc) Institute for Advanced Study, Princeton
2003-2004	Postdoc at Institute for Quantum Information Science, University of Calgary
2004-2008	Junior Research Group in Quantum Computing at University of Frankfurt
2009-2010	Visiting Senior Research Fellow CQT Singapore
Since 2010	Asst. Prof. in Division of Mathematical Sciences, Nanyang Tech. University and Principal Investigator, CQT

Dissertation

Award: “Preis für den Naturwissenschaftlichen Nachwuchs 2001” of the Johann Wolfgang Goethe Universität Frankfurt for the dissertation “Über beschränkte Interaktion in der Kommunikationskomplexität”.

Research Areas:

Theoretical Computer Science, Complexity Theory, Quantum Computing, Communication Complexity, Interactive Proofs

Selected Publications:

- [1] H. Klauck, D. Nanongkai, G. Pandurangan, P. Robinson: Distributed Computation of Large-scale Graph Problems. *26 ACM-SIAM Symp. on Discrete Algorithms (SODA)*, pp. 391-410, 2015.
- [2] H. Klauck, S. Podder: Two Results about Quantum Messages. *39th Int. Symp. on Mathematical Foundations of Computer Science (MFCS)*, vol. 2, pp. 445-456, 2014.
- [3] M. Elkin, H. Klauck, D. Nanongkai, G. Pandurangan: Can quantum communication speed up distributed computation? *ACM Symposium on Principles of Distributed Computing (PODC)*, pp. 166-175, 2014.
- [4] H. Klauck, V. Prakash: Streaming computations with a loquacious prover. *4th Innovations in Theoretical Computer Science (ITCS)*, pp. 305-320, 2013.
- [5] H. Klauck, R. de Wolf: Fooling One-Sided Quantum Protocols. *Symposium on Theoretical Aspects of Computer Science (STACS)*, pp. 424-433, 2013.
- [6] H. Klauck: On Arthur Merlin Games in Communication Complexity. *IEEE Conference on Computational Complexity*, pp. 189-199, 2011.
- [7] H. Klauck: A strong direct product theorem for disjointness. *ACM Symposium on Theory of Computing (STOC)*, pp. 77-86, 2010.
- [8] R. Jain, H. Klauck, A. Nayak. Direct Product Theorems for Classical Communication Complexity via Subdistribution Bounds. *ACM Symposium on Theory of Computing (STOC)*, pp. 599-608, 2008.
- [9] H. Klauck, A. Nayak, A. Ta-Shma, D. Zuckerman: Interaction in Quantum Communication. *IEEE Transactions on Information Theory*, 53(6): 1970-1982, 2007.
- [10] H. Klauck: Lower Bounds for Quantum Communication Complexity. *SIAM Journal on Computing*, 37(1): 20-46, 2007.
- [11] H. Klauck, R. Spalek, R. De Wolf: Quantum and classical strong direct product theorems and optimal time-space tradeoffs. *SIAM Journal on Computing*, 36(5): 1472-1493, 2007.

Academic Service:

Program committee IEEE Conference on Computational Complexity 2012, Symposium on Theoretical Aspects of Computer Science 2008. Local Organization Committee QIP (Conference on Quantum Information Processing) 2011, TQC (Theory of Quantum Computation, Communication and Cryptography) 2014. Co-organization of Dagstuhl Seminars 15082 (Limitations of convex programming) and 13082 (Communication Complexity, Linear Optimization, and lower bounds for the nonnegative rank of matrices).