

ROYA RADGOHAR

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EDUCATION

Ms. Quantum computing 2010

University: University of Kurdistan, Iran

Thesis: Quantum transport on networks by using continuous-time quantum random walks

RESEARCH AREA:

Decoherence in continuous-time quantum walks on different networks and its effect on mixing time.

Modeling classical and quantum transport on different networks by means of continuous-time quantum walks and calculating the classical and quantum transition probabilities between two nodes of the networks and compare them with each other numerically.

WORKS:

- [1] S. Salimi and **R. Radgohar**, *The effect of decoherence on mixing time in continuous-time quantum walks on one-dimensional regular networks*, International Journal of Quantum Information, Vol. 8, No. 5 (2010) 795-806.
- [2] S. Salimi and **R. Radgohar**, *The effect of large-decoherence on mixing-time in Continuous time quantum walks on long-range interacting cycles*, J. Phys. B: At. Mol. Opt. Phys. 43 (2010) 025503.
- [3] S. Salimi and **R. Radgohar**, *Mixing and decoherence in continuous-time on long-range interacting cycles*, J. Phys. A: Math. Theor. **42**, 475302 (2009).
- [4] S. Salimi and **R. Radgohar**, M. Soltanzadeh, *symmetry and quantum transport on networks*, International Journal of Quantum Information, Vol. 8, No. 8, 1323 (2010).
- [5] **R. Radgohar** and S. Salimi, *The effect of large-decoherence on mixing-time in continuous-time quantum walks on one-dimensional regular networks*, Quantum Inf. Process (2013) 12:303–320.

TALKS:

- [1] **Roya Radgohar**, The effect of Symmetry in Quantum Transport on Networks, *Symposia on Quantum Computing & Quantum Information Processing 3rd-4th January 2009, Sahid Beheshti University, Tehran, Iran.*
- [2] S. Salimi and **Roya Radgohar**, Quantum transport on networks, *Industry University of Isfahan, Iran, 2010.*

POSTERS:

- [1] S. Salimi and **Roya Radgohar**, *The effect of decoherence in Continuous-time quantum walks on long-range interacting cycles*, Industry university of Isfahan, Iran, 2010.
- [2] **R.Radgohar** , *Decoherence and Quantum Transport*, Workshop on quantum dynamics and entanglement, ICTP, Trieste, Italy.
- [3] **R.Radgohar**, *Symmetry and Quantum Transport on Networks*, *Workshop on quantum dynamics and entanglement, ICTP, Trieste, Italy.*
- [4] **R.Radgohar**, *Spatial search on Cayley graphs*, International Iranian Conference, Tehran, Sharif University, Iran, 2012.