Liam Roditty

CONTACT INFORMATION		
	Office Address:	School of Computer Science, Tel Aviv University, Tel Aviv 69978, Israel.
	Office Tel:	972-3-6405398
	Home Address:	29 Yehuda Hanasi st, Tel Aviv 69206, Israel.
	Home Tel:	972-3-6439515
	Homepage:	www.cs.tau.ac.il/~liamr
	Email:	liamr@post.tau.ac.il
	Citizenship:	Israeli.

RESEARCH INTERESTS

- **Graph algorithms:** designing algorithms for fundamental graph theory problems.
- **Dynamic algorithms:** developing efficient algorithms to maintain data under changes.
- **Game theory:** analyzing the quality of the equilibrium in network formation games.

EDUCATION

2001- present	PhD Student in Computer science, Tel Aviv University
	Research Advisor: Prof. Uri Zwick
	Approved Research Proposal: Dynamic and static graphs algorithms
	Expected Graduation June 2006.
1998-2001	M.Sc in Computer Science, Tel Aviv university, Magna Cum Laude.
	Research Advisor: Prof. Uri Zwick
	Thesis title: Roundtrip spanners and roundtrip routing in directed graphs
1995-1998	B.A in Computer Science and Economic, Tel Aviv University, Magna Cum Laude.

HONORS AND AWARDS

2006	Best Teacher Award.
2005	The Intel prize for PhD students.
2005	The Alex de Rothschild PhD Fellowship.
2004	The Deutsch Prize for Excellence in PhD studies, School of Computer Science, Tel Aviv University.
1998	Dean honor's list, faculty of Exact Sciences, Tel Aviv University.
1997	Dean honor's list, faculty of Exact Sciences, Tel Aviv University.

EMPLOYMENT

2001-present	Lecturer and Teaching Assistant, School of Computer Science, Tel Aviv University. Courses taught: "C" programming, Object oriented programming, workshop on dynamic algorithms and a seminar on algorithms.
1998-2001	Algorithms Developer and Senior Software engineer, in Advanced Recognition Technologies (ART), Tel Aviv Israel.
1996-1998	Databases Programmer in Scanvec

TALKS AT CONFERENCES AND SEMINARS

1. International Colloquium on Automata, Languages and Programming (ICALP), July 2005
2. Bertinoro Workshop on Algorithms and Data Structures (ADS), May-June 2005
3. Computer Science Colloquium, Ben-Gurion University, February 2004
4. Computer Science Colloquium, Netanya Academic College, December 2004
5. Special seminar in University of Rome "La Sapienza", October 2004
6. Symposium on Foundations of Computer Science (FOCS), October 2004
7. Algorithms Seminar, TAU, October 2004
8. Symposium on the Theory of Computations (STOC), June 2004
9. Workshop on Dynamic Algorithms and Applications, January 2004
10. Algorithms Seminar, TAU, October 2003

11. Algorithms Seminar, TAU, May 2003

12. Symposium on Foundations of Computer Science (FOCS), November 2002

13. Workshop on Discrete Metric Spaces and their Algorithmic Applications, March 2002

14. Symposium on Discrete Algorithms (SODA), January 2002

PUBLICATION LIST

1. Approximating the second shortest path in a weighted directed graph. Work in progress.
Liam Roditty

2. On bounded leg shortest paths problems. Submitted.
Liam Roditty and Michael Segal.

3. On Nash equilibria for a network creation game. SODA 2006.
Susanne Albers, Stefan Eilts, Eyal Even-Dar, Yishay Mansour and Liam Roditty.

4. Replacement paths and k simple shortest paths in unweighted directed graphs. ICALP 2005.
Liam Roditty and Uri Zwick.

5. Deterministic constructions of approximate distance oracles and spanners. ICALP 2005.
Liam Roditty, Mikkel Thorup and Uri Zwick.

6. Dynamic approximate all-Pairs shortest Paths in undirected Graphs. FOCS 2004.
Liam Roditty and Uri Zwick.

7. On dynamic shortest paths problems. ESA 2004.
Liam Roditty and Uri Zwick.

8. A fully dynamic reachability algorithm for directed graphs with an almost linear update time.
STOC 2004.
Liam Roditty and Uri Zwick.

9. A faster and simpler fully dynamic transitive closure. SODA 2003.
Liam Roditty.
Submitted to the ACM Transactions on Algorithms (TALG).

10. Improved dynamic reachability algorithms for directed graphs. FOCS 2002.
Liam Roditty and Uri Zwick.
Submitted to SIAM Journal on Computing (SICOMP).

11. Roundtrip spanners and roundtrip routing in directed graphs. SODA 2002.
Liam Roditty, Mikkel Thorup and Uri Zwick.
Accepted to the Journal of Algorithms (JALG).

REFERENCES

- Prof. Uri Zwick, School of Computer Science, Tel Aviv University, Tel Aviv 69978, Israel.
Phone: +972-3-6409610 Email: zwick@post.tau.ac.il

- Prof. Giuseppe F. Italiano, Universit di Roma "Tor Vergata" via del Politecnico, Roma, Italy.
Phone: +39 06 7259 7394. Email: italiano@disp.uniroma2.it

- Prof. Mikkel Thorup, AT&T Labs-Research, NJ 07932 USA.
Phone: +1-973-360-8904. Email: mthorup@research.att.com

- Prof. Valerie King, University of Victoria Dept. of Computer Science, Victoria, BC , Canada.
Phone: (250)721-7299. Email: val@cs.uvic.ca.

- Prof. Yishay Mansour, School of Computer Science, Tel Aviv University, Tel Aviv 69978,
Israel. Phone: +972-3-640-8829. Email: mansour@cs.tau.ac.il.