CURRICULUM VITAE

Dr. Nissan Levtov

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ORT Braude College, Department of Software Engineering,
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EDUCATION

Weizmann Institute of science,

Ph.D. Computer Science, 2005.

Title of thesis: *Algorithms for Geometric Optimization Problems in Wireless Networks*

Advisor: Prof. David Peleg

The Israel Institute of Technology, (Technion),

M.Sc., Mathematics, 1996.

Title of thesis: *Strong Equilibrium in Congestion Games*

Advisor: Prof. Ron Holzman

Thesis Grade: 96

The Israel Institute of Technology, (Technion),

B.Sc. (Cum Laude), Mathematics, 1993.

RESEARCH INTERESTS

- Optimization Algorithms
- Computational Geometry
- Graph and Data Mining
- ….

ACADEMIC APPOINTMENTS

2010-Present: Faculty member, Department of Software Engineering, Ort Braude College, Karmiel, Istrael (Lecturer and researcher).

2010: Post- doctoral fellow, Department of Computer Science, Haifa University, Israel (host: Prof Martin Golumbic).

Subject of Research: Security issues in Peer to peer systems.

2009: Post-doctoral fellow, Department of Computer Science, University of Calgary (host: Prof. Zongpeng Li).

Subject of research: Peer to peer _le sharing systems; Bundling in Bittorent-like systems. Performance analysis,simulations, algorithmic and game theoretic models and solutions.

2008: Researcher in the ETNA (Ethernet Transport Networks, Architectures of Networking) consortium, Communications Systems Engineering Department, Ben-Gurion University.

Subjects of research: Architectures and protocols for large scale Ethernet networks.

2006-2007: Post-doctoral fellow, Department of Computer Science, Ben-Gurion University of the Negev (host: Prof. Matthew J. Katz).

Subject of research: geometric optimization algorithms with applications in wireless networks.

2007-2009: Adjunct lecturer: Ben-Gurion University (Israely Air Force), Sapir College, Shamoon College of Engineering (SCE), Ashkelon Academic College.

1992-1997: Teaching assistant, Department of Mathematics, Technion.

PROFESSIONAL EXPERIENCE

2008: Ben-Gurion University. Responsible for the deliverable documentation of the network node prototype and network simulation teams in ETNA FP-7 Consortium.

1997-2000: Research and development department, ECI Telecom. Member of a research team developing ATM network devices. Performance analyst and simulation modeler of telecommunication network nodes.

1991-1992: Center of student promotion, Technion. Instructor.

TEACHING EXPERIENCE

- **Linear Optimization**
- **Optimization Lab**
- **Automata, Formal Languages and Computability**
- **Digital Systems**
- **Numerical Analysis**

- **Data Bases**
- **Distributed Object Programming**
- **Discrete Mathematics**
- **Complex Analysis**
- **Approximation Algorithms (seminar)**
- **Approximation Lagorithms**

ACADEMIC AND PROFESSIONAL AWARDS AND GRANTS

- Post doctoral fellowship partly funded through the VATAT grant
- Ph.D studies partly funded by the MAGNET program of the Israel Ministry of Industry and Trade.

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PROFESSIONAL ACTIVITIES

ORT Braude College:

2010 – present Member in the data-mining research group, Department of Software Engineering, Ort Braude College, Karmiel
2010 – present Advisor in Final Project, Department of Software Engineering, Ort Braude College, Karmiel**.**

Conferences:

- PODC/SPAA 2009 (organizing committee volunteer)
- The 10th Haifa Workshop on Interdisciplinary Applications of Graphs, Combinatorics and Algorithms (committee member)

LIST OF PUBLICATIONS

Refereed Papers

1. **Refereed papers in scientific journals**

1. M. J. Katz, N. Lev-Tov and G. Morgenstern, Conflict-Free Coloring of points on a line with respect to a set of intervals. *Comput. Geom*. 45(9): 508-514 (2012)
2. N. Lev-Tov and D. Peleg, Conict free coloring of unit disks, *Discrete Applied Mathematics* 157(7) (2009), 1521-1532.
3. P. Carmi, M.J. Katz and N. Lev-Tov, Polynomial-time approximation schemes for piercing and covering with applications in wireless networks, *Comp. Geom. Theory and Appls* 39 (2008), 209-218.
4. N. Lev-Tov and D. Peleg, Polynomial time approximation schemes for base station coverage with minimum total radii, *Computer Networks* 47 (2005), 489-501.

5. R. Holzman and N. Law-Yone (Lev-Tov), Network structure and strong equilibrium in route selection games, *Mathematical Social Sciences* 46 (2003), 193-205.
6. S. Aviran, N. Lev-Tov, S. Onn and U. Rothblum, Vertex characterization of partition polytopes of bipatition and of planar point sets, *Discrete Applied Mathematics* 124 (2002), 1-15.
7. R. Holzman and N. Law-Yone, Strong equilibrium in congestion games, *Games and Economic Behavior* 21 (1997), 85-101.

Papers submitted

- V. Kirzhner, N. Levtov and Z. Volkovich, An Estimate of the Target Function Optimum for the Network Steiner Problem, submitted to *The Journal of Combinatorial Algorithms, Informatics and Computational Sciences.*

Papers in refereed conference proceedings

1. N. Lev-Tov, N. Carlsson, Z. Lee, C. Williamson and S. Zhang, Dynamic File Selection Policies for Bundling in BitTorrent-like Systems, *IEEE International Workshop of Quality of Service, IWQOS* 2010.
2. C. Avin, R. Giladi, N. Lev-Tov and Z. Lotker, From Trees to DAGs: Improving the Performance of Bridged Ethernet Networks, *IEEE Global Communications Conference*, Hawaii, USA IEEE Globecom 2009.
3. P. Carmi, M. J. Katz and N. Lev-tov, Covering points by unit disks of fixed location, The 18th *International Symposium on Algorithms and Computation* (ISAAC 2007).
4. M. J. Katz, N. Lev-Tov and G. Morgenstern, Conflict-free coloring of points on a line with respect to a set of intervals, Proc. 19th Canadian Conf. on Computational Geometry, 2007, 93-96
5. C. Ambuhl, A. Clementi, M. Di Ianni, N. Lev-Tov, A. Monti, D. Peleg, G. Rossi and R. Silvestri, Efficient algorithms for low-energy bounded-hop broadcast in ad-hoc wireless networks, *Proc. 21th Symp. on Theoretical Aspects of Computer Science*, 2004, 418-427.
6. N. Lev-Tov and D. Peleg, Exact algorithms and approximation schemes for base station placement problems, *8th Scandinavian Workshop on Algorithm Theory (SWAT)*, Turku, Finland, 2002, 90-99.