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## CURRICULUM VITAE

*Zur Izhakian*

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Education	<p><b>Ph.D. Student – Computer Science &amp; Pure Mathematics</b>, Tel-Aviv University, Tel-Aviv, Israel <b>Thesis Advisors:</b> Prof. Eugenii Shustin (The School of Mathematical Sciences) and Prof. Amir Averbuch (The School of Computer Science) <b>Topic of thesis:</b> Representation Methods of Ployhedral (Tropical) Objects</p> <p><b>M.Sc – Computer Science &amp; Mathematics</b>, Mathematical Algorithm Oriented Thesis, Tel-Aviv University, Tel-Aviv, Israel, 2001, <b>Summa Cum Laude (Highest Honors)</b> <b>Supervisor:</b> Prof. Danni Cohen-Or <b>Topic of thesis:</b> An algorithm for Computing a Polynomial's Dual Curve in Parallel Coordinates</p> <p><b>B.Sc – Mathematics &amp; Computer Science</b>, Tel-Aviv University, Tel-Aviv, Israel, 1998, <b>Magna Cum Laude (High Honors)</b></p>
Languages	Hebrew and English
Research Area	Tropical Algebraic Geometry (Mainly, Non-Archimedean Amoebas) and Tropical Algebra, Max-Plus Algebra, Toric Varieties, Geometry of Polyhedra, Imaging & Scientific Visualization
Work Experience	1998 – 2005 <b>Academic Teaching &amp; Assistant</b> – Tel Aviv University, Israel
	1996 -2001 <b>Algorithmic Developer &amp; Software Engineer</b> – R&D Division of an international internet foundation company

1994 -1995

**Sales and Support** – A Software Company for Financial and Logistic Computerized Management System

National Duty

1990 -1993

**Israel Defense Forces**

Scholarships

- VTAT – A governmental scholarships, of the council for higher education, for advanced study in sciences, years 2001 to 2005.
- The High Council for Scientific and Technological Cooperation between France and Israel, 2005.
- The German-Israeli Foundation for Research and Development by Hermann Minkowski Minerva Center for Geometry, 2004.
- EU – Multi-resolution in Geometric Modelling (MINGLE), Research Project, 2003.

Prizes and Awards

University prize, The School of Mathematical Sciences (Dan David), for excellence in educating, June 1999.

Publications

- Z. Izhakian, Tropical Varieties, Ideals and an Algebraic Nullstellensatz, Preprint, 2005.
- E.Shustin and Z. Izhakian, A tropical Nullstellensatz, Preprint arXiv:math.AC/0508413, 2005.
- Z. Izhakian, Tropical Arithmetic & Algebra of Tropical Matrices, Submitted to *Journal of Pure and Applied Algebra (JPAA)*, Preprint arXiv:math.AG /0505458, 2005.
- Z. Izhakian, Duality of Tropical Curves , Submitted to *Communications in Algebra*, Preprint arXiv:math.AG/0503691, 2005.
- Z. Izhakian, Algorithms and Dual Representations of Polytopes and Multidimensional Polygonal Regions – Submitted to *Journal of Applied Mathematics (JAM)*, 2005.
- Z. Izhakian, Dual Representations of Multidimensional Graphs & Segments, Submitted to *Journal of Discrete & Computational Geometry (JDCG)*, 2004.
- Z. Izhakian, Algebraic Curves – Dual Representation, Reconstruction & Algorithms, Submitted to *Journal of Computer Aided Geometric Design (CAGD)*, 2004.
- Z. Izhakian, Visualization of Proximity Objects and Refinement of Characteristic Line from Biased Samples, *Visualization, Imaging, and Image Processing (VIIP) 2004*, pp.96-103, 2004.
- Z. Izhakian, New Visualization of Surfaces in Parallel Coordinates - Eliminating Ambiguity and Some Over-Plotting, *Journal of WSCG*, Volume 1-3, No. 12, pp. 183-191, 2004, ISSN 1213-6972.
- Z. Izhakian, Representing Surfaces by Planar Regions Using Parallel Coordinates, Preprint, 2003.
- Z. Izhakian, Algebraic Curves in Parallel Coordinates - Avoiding the "Over-Plotting" Problem, Preprint <http://arXiv.org/abs/cs/0403005>, 2003.

Conferences &  
Workshops

- Trimester on Real Geometry, Institute Henri Poincare, France, September 2005.
- Tropical Geometry, Strasbourg, France, May 2005.
- Tropical Algebraic Geometry, Oberwolfach, Germany, October 2004.
- The 4th IASTED International Conference on Visualization, Imaging, and Image Processing, Marbella, Spain, September 2004.
- Computer Graphics, Visualization and Computer Vision'2004, Plzen-Bory, Czech Republic, February 2004.
- Curves & Surfaces, Saint-Malo, France, June 2002.