## Dror Bar-Natan — Curriculum Vitae (Short)

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**1982–1984:** B.Sc. in mathematics, Tel Aviv University, *summa cum laude*.

1984–1987: Military service (taught high school level mathematics).

1987–1991: Ph.D. in mathematics, Princeton University. Title: Perturbative aspects of the Chern-Simons topological quantum field theory. Advisor: Professor Edward Witten.

1991–1995: Benjamin Peirce Assistant Professor at Harvard University.

1995–1997: Senior Lecturer of Mathematics at the Hebrew University. Jerusalem.

**1997–2004:** Associate Professor of Mathematics at the Hebrew University, Jerusalem.

**1999-2000:** On sabbatical in Berkeley; fall semester as a "Visiting Miller Professor" at the University of California, spring semester at MSRI.

**2002-2006:** Associate Professor of Mathematics at the University of Toronto.

From July 2006: Professor of Mathematics at the University of Toronto.

Author of 46 peer-reviewed publications, about 17 other publications, speaker in about 270 events (since 1998), teacher of about 71 classes, supervisor of about 38 students (summer projects to PhD) and 9 post-doctoral fellows, receipient of about 12 research grants.

## Selected Publications.

- On the Vassiliev Knot Invariants, Topology **34** (1995) 423–472.
- Non-Associative Tangles, in Geometric topology (proceedings of the Georgia international topology conference), (W. H. Kazez, ed.), 139–183, Amer. Math. Soc. and International Press, Providence, 1997.
- With S. Garoufalidis, On the Melvin-Morton-Rozansky Conjecture, Inventiones Mathematicae 125 (1996) 103–133.
- Lie Algebras and the Four Color Theorem, Combinatorica 17-1 (1997) 43-52.
- On Associators and the Grothendieck-Teichmuller Group, Selecta Mathematica (New Series) 4 (1998) 183–212.
- With S. Garoufalidis, L. Rozansky, and D. P. Thurston, Wheels, Wheeling, and the Kontsevich Integral of the Un-knot, Israel Journal of Mathematics 119 (2000) 217–237.
- With S. Garoufalidis, L. Rozansky, and D. P. Thurston, The Århus Integral of Rational Homology 3-Spheres I: A Highly Non Trivial Flat Connection on S<sup>3</sup>, Selecta Mathematica, New Series 8 (2002) 315–339.

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Publications







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• With B. McKay, M. Bar-Hillel and G. Kalai, *Solving the Bible Code Puzzle*, Statistical Science **14-2** (1999) 150–173.

- With T. Q. T. Le and D. P. Thurston, *Two Applications of Elementary Knot Theory to Lie Algebras and Vassiliev Invariants*, Geometry and Topology **7-1** (2003) 1–31.
- Khovanov's Homology for Tangles and Cobordisms, Geometry and Topology 9-33 (2005) 1443–1499.
- Fast Khovanov Homology Computations, Journal of Knot Theory and its Ramifications 16-3 (2007) 243–255.
- Balloons and Hoops and their Universal Finite Type Invariant, BF Theory, and an Ultimate Alexander Invariant, Acta Mathematica Vietnamica **40-2** (2015) 271–329, Web/papers/KBH/.
- With Z. Dancso, Finite Type Invariants of W-Knotted Objects II: Tangles, Foams, and the Kashiwara-Vergne Problem, Mathematische Annalen 367 (2017) 1517–1586, arXiv:1405.1955.
- With R. van der Veen, A Perturbed-Alexander Invariant, Quantum Topology 15 (2024) 449–472, arXiv:2206.12298.