

Dror Bar-Natan

Two Page CV

October 16, 2019

Email: drorbn@math.toronto.edu.

web:

<http://www.math.toronto.edu/drorbn>.

Age now: 53. Born January 30th, 1966.

Holds Israeli, US, and Canadian citizenships.

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 "Visiting Miller Professor" at the University of California, spring semester at MSRI.

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

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

Current Grant: NSERC Discovery, *Poly-Time Knot Theory and Quantum Algebra*, (2018–2023, CDN\$140,000).

10 Career Best Publications:

1. *On the Vassiliev Knot Invariants*, *Topology* 34 (1995) 423–472. (Reported at the prestigious Séminaire Bourbaki. See P. Vogel, *Invariants de Vassiliev des nœuds [d'après D. Bar-Natan, M. Kontsevich et V. A. Vassiliev]*, Séminaire Bourbaki 761 (1993) 1–17 & *Asterisque* 216 (1993) 213–232).
2. With S. Garoufalidis, *On the Melvin-Morton-Rozansky Conjecture*, *Inventiones Mathematicae* 125 (1996) 103–133.
3. *On Associators and the Grothendieck-Teichmüller Group*, *Selecta Mathematica* (New Series) 4 (1998) 183–212.

Dror Bar-Natan

Professor, Department of Mathematics, University of Toronto, Toronto, Ontario, Canada.

Office: *Bahen Centre Room 6178*, +1-416-946-5438; Fax: +1-416-978-4107.

E-Mails:

As Associate Chair for Undergraduates in the Math Department:

ugchair@math.toronto.edu.

As a mathematician or a teacher: drorbn@math.toronto.edu.

[Slow Mail](#) and [Map](#) (@ N43.659513 W79.397751).

[Profile](#) (CV, research and teaching statements, some opinions).



I'm hyper-famous! Click to see how



[Publications](#)



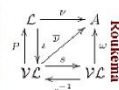
[Talks](#)



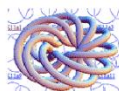
[Classes](#)



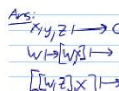
[Image Gallery](#)



[Students](#)



[The Knot Atlas](#)
(retired version [here](#))



[Academic Pensieve](#)



[Dror Bar-Natan Wiki](#)



[Bible Codes](#)
(I'm out! [1](#) [2](#))



[Odds, Ends, Unfinished](#)

[<< A >>](#) I don't understand the Batalin-Vilkovisky formalism.

Online since 1994!
[Copyright Notice](#)

4. 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^3* , *Selecta Mathematica, New Series* 8 (2002) 315–339.
5. With B. McKay, M. Bar-Hillel and G. Kalai, *Solving the Bible Code Puzzle*, *Statistical Science* 14-2 (1999) 150–173.
6. 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.
7. *Khovanov’s Homology for Tangles and Cobordisms*, *Geometry and Topology* 9-33 (2005) 1443–1499.
8. *Balloons and Hoops and their Universal Finite Type Invariant, BF Theory, and an Ultimate Alexander Invariant*, *Acta Mathematica Vietnamica* 40-2 (2015) 271–329.
9. With Z. Dancso, *Finite Type Invariants of W -Knotted Objects II: Tangles, Foams, and the Kashiwara-Vergne Problem*, *Mathematische Annalen* 367 (2017) 1517-1586.
10. With R. van der Veen, *A Polynomial Time Knot Polynomial*, *Proc. Amer. Math. Soc.* 147 (2019) 377–397.

Talks. Over the past 20 years I have given several hundred research presentations across the globe. See <http://www.math.toronto.edu/~drorbn/Talks/>.

Collaborations. I maintain active research collaborations with Anton Alekseev of Geneva, Zsuzsanna Dancso of Sydney, Dylan Thurston of Indiana, and Roland van der Veen of Groningen.

Students. Over the years I had approximately 40 research supervision relationships with students at all levels, including about 15 PhD students. See a partial description at <http://www.math.toronto.edu/~drorbn/Students/>.

This document is at <http://drorbn.net/AcademicPensieve/2019-10/>.

A full version of my CV is at <http://www.math.toronto.edu/~drorbn/Profile/>.