Publications List for Dror Bar-Natan.

Up to 5 publications from the past five years:

The last five years had been an unusual period of time for me. I have been very active doing mathematical research, yet with the phenomenal advance of the internet, much of my output was channelled into non-traditional directions (which I sincerely hope will become the established tradition, or the root of a new established tradition, by the next time I will be applying for this fellowship). Thus much of my output had taken the form of web documents and highly documented and mostly videotaped lectures (all available online). Sorry, referees. This will make evaluating my top three "publications" below a bit of a challenge. [Indeed, a part of my need for a long sabbatical is to allow my formal publications to catch up with my research and my informal publications].

1. A large mass of lectures and lecture series accompanied by many detailed handouts, videos, and other materials, all available online at http://www.math.toronto.edu/~drorbn/Talks/ and more graphically at http://www.math.toronto.edu/~drorbn/Talks/Portfolio/.
2. "Finite Type Invariants of w-Knotted Objects: From Alexander to Kashiwara and Vergne", joint with Zsuzsanna Dancso. This is still unfinished as a formal journal article, yet it is available on the web as a series of 22 videotaped lectures; see http://drorbn.net/index.php?title=WKO.
3. "The Knot Atlas", joint with Scott Morrison and many other contributors, is an online knot theory atlas and (I believe) presently one of the most comprehensive online knot theory databases. See http://katlas.org/wiki/Main_Page.
4. "Some Dimensions of Spaces of Finite Type Invariants of Virtual Knots", joint with Iva Halacheva, Louis Leung, and Fionntan Roukema, Experimental Mathematics 20-3 (2011) 282-287 and http://www.math.toronto.edu/~drorbn/papers/v-Dims/.
5. "Homomorphic Expansions for Knotted Trivalent Graphs", joint with Zsuzsanna Dancso, to appear in the Journal of Knot Theory and its Ramifications. See also http://www.math.toronto.edu/~drorbn/papers/ktgs/.

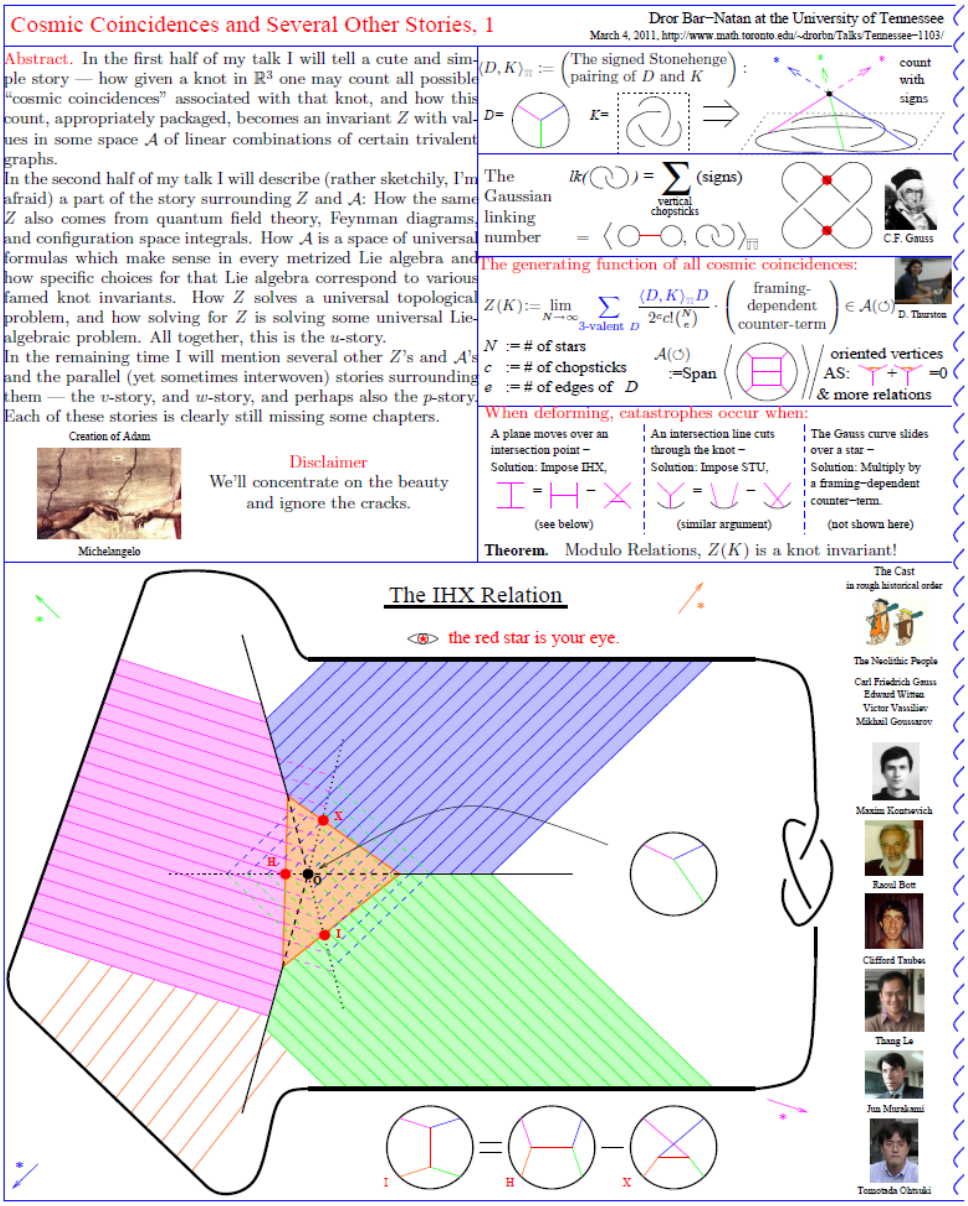
Up to 5 other publications:

1. "Khovanov Homology for Tangles and Cobordisms", Geometry and Topology 9 (2005) 1443-1499 and http://www.math.toronto.edu/~drorbn/papers/Cobordism/.
2. "Solving the Bible Code Puzzle", joint with Brendan McKay, Gil Kalai, and Maya Bar-Hillel, Statistical Science 14-2 (1999) 150-173 and http://cs.anu.edu.au/~bdm/dilugim/StatSci/.
3. "The Århus Integral of rational homology 3-spheres", joint with Stavros Garoufalidis, Lev Rozansky, and Dylan Thurston. Selecta Mathematica (New Series) in 3 parts: 8 (2002) 315-339, 8 (2002) 341-371, and 10 (2004) 305-324.
4. "On Associators and the Grothedieck-Teichmuller Group, I", Selecta Mathematica (New Series) 4 (1998) 183-212.
5. "On the Vassiliev Knot Invariants", Topology 34 (1995) 423-472.

Current or Recent (past 5 years) Post Docs and PhD students supervised:

1. Gad Naot, Ph.D., 2007. Thesis title: The Universal sl(2) Link Homology Theory. See also http://www.math.toronto.edu/~drorbn/Students/index.html#Naot.
2. Hernando Burgos, Ph.D., 2009. Thesis title: The Jones Polynomial and the Planar Algebra of Alternating Links. See also http://www.math.toronto.edu/~drorbn/Students/index.html#Burgos.

3. Jana Archibald, Ph.D., 2010. Thesis title: The Multivariable Alexander Polynomial on Tangles. See also http://www.math.toronto.edu/~drorbn/Students/index.html#Archibald.
4. Louis Leung, Ph.D., 2010. Thesis title: Classical Lie Algebra Weight Systems of Arrow Diagrams. See also http://www.math.toronto.edu/~drorbn/Students/index.html#Leung.
5. Zsuzsanna Dancso, Ph.D., 2011. Thesis title: On a Universal Finite Type Invariant of Knotted Trivalent Graphs. See also http://www.math.toronto.edu/~drorbn/Students/index.html#Dancso.
6. Peter Lee, Ph.D., 2011. Thesis title: The Pure Virtual Braid Group is Quadratic. See also http://www.math.toronto.edu/~drorbn/Students/index.html#LeeP.
7. Karene Chu, Ph.D., 2012. Thesis title: Flat Virtual Pure Tangles. See also http://www.math.toronto.edu/~drorbn/Students/index.html#Chu.
8. Daniel Moskovitch, Postdoctoral Fellow, 2010-2011.
9. David Penneys, Postdoctoral Fellow since 2012.
10. Peter Samuelson, Postdoctoral Fellow since 2012.



Video and more at `http://www.math.toronto.edu/~drorbn/Talks/Tennessee-1103/` and at `http://www.math.toronto.edu/~drorbn/Talks/Caen-1206/#Colloquium`