## Footnotes

- 1. Following a homonymous paper and thesis by Peter Lee [Lee]. All serious work here is his and was extremely patiently explained by him to DBN. Page design by the latter.
- 2. The proof presented here is broken. Specifically, at the very end of the proof of the "general case" of Proposition 1 the sum that makes up ker  $\pi_{p-1}$  is interchaged with  $\mu_F^{-1}$ . This is invalid; in general it is not true that  $T^{-1}(U+V) = T^{-1}(U) + T^{-1}(V)$ , when T is a linear transformation and U and V are subspaces of its target space. We thank Alexander Polishchuk for noting this gap. A handwritten non-detailed fix can be found at http://katlas.math.toronto.edu/drorbn/AcademicPensieve/Projects/Quadraticity/, especially under "Oregon Handout Post Mortem". A fuller fix will be made available at a later time.

## References

- [AT] A. Alekseev and C. Torossian, *The Kashiwara-Vergne conjecture and Drinfeld's associators*, arXiv:0802.4300.
- [BN1] D. Bar-Natan, On the Vassiliev knot invariants, Topology **34** (1995) 423–472.
- [BN2] D. Bar-Natan, Facts and Dreams About v-Knots and Etingof-Kazhdan, talk presented the Swiss Knots 2011 conference. Video more  $\operatorname{at}$ and at http://www.math.toronto.edu/~drorbn/Talks/SwissKnots-1105/.
- [BN3] D. Bar-Natan, Finite Type Invariants of W-Knotted Objects: From Alexander to Kashiwara and Vergne, paper and related files at http://www.math.toronto.edu/~drorbn/papers/WKO/.
- [BND] D. Bar-Natan, and Z. Dancso, Homomorphic Expansions for Knotted Trivalent Graphs, arXiv:1103.1896.
- [BEER] L. Bartholdi, B. Enriquez, P. Etingof, and E. Rains, Groups and Lie algebras corresponding to the Yang-Baxter equations, Journal of Algebra 305-2 (2006) 742-764, arXiv:math.RA/0509661.
- [Dri] V. G. Drinfel'd, Quasi-Hopf Algebras, Leningrad Math. J. 1 (1990) 1419–1457 and On Quasitriangular Quasi-Hopf Algebras and a Group Closely Connected with Gal(Q/Q), Leningrad Math. J. 2 (1991) 829– 860.
- [EK] P. Etingof and D. Kazhdan, Quantization of Lie Bialgebras, I, Selecta Mathematica, New Series 2 (1996) 1–41, arXiv:q-alg/9506005, and Quantization of Lie Bialgebras, II, Selecta Mathematica, New Series 4 (1998) 213–231, arXiv:q-alg/9701038.
- [GPV] M. Goussarov, M. Polyak, and O. Viro, Finite type invariants of classical and virtual knots, Topology 39 (2000) 1045–1068, arXiv:math.GT/9810073.
- [Hav] A. Haviv, Towards a diagrammatic analogue of the Reshetikhin-Turaev link invariants, Hebrew University PhD thesis, September 2002, arXiv:math.QA/0211031.
- [Hut] M. Hutchings, Integration of singular braid invariants and graph cohomology, Transactions of the AMS 350 (1998) 1791–1809.
- [KV] M. Kashiwara and M. Vergne, The Campbell-Hausdorff Formula and Invariant Hyperfunctions, Invent. Math. 47 (1978) 249–272.
- [Kau] L. H. Kauffman, Virtual Knot Theory, European J. Comb. 20 (1999) 663–690, arXiv:math.GT/9811028.
- [KL] L. H. Kauffman and S. Lambropoulou, Virtual Braids, Fundamenta Mathematicae 184 (2005) 159–186, arXiv:math.GT/0407349.
- [Koh] T. Kohno, Monodromy representations of braid groups and Yang-Baxter equations, Ann. Inst. Fourier 37 (1987) 139–160.
- [Lee] P. Lee, *The Pure Virtual Braid Group is Quadratic*, in preparation. See links at http://www.math.toronto.edu/drorbn/Talks/Oregon-1108/.

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