

## Publications

(selected and ordered approximately chronologically by time of writing, not of publication)

- [BS] *The Fundamental Theorem of Vassiliev invariants*, joint with D. Bar-Natan, "Geometry and Physics", Lecture Notes in Pure & Appl. Math. **184**, M. Dekker, New York, 1996, 101–134.
- [St] *Über Harrison-Kohomologie und die Drinfel'd-Vermutung*, diploma thesis, Humboldt University, Berlin, 1995
- [St2] *Enumeration of chord diagrams and an upper bound for Vassiliev invariants*, J. Of Knot Theory and Its Ram. **7(1)** (1998), 93–114.
- [St3] *Stirling numbers, Eulerian idempotents and a diagram complex*, J. Of Knot Theory and Its Ram. **7(2)** (1998), 231–256.
- [St4] *A Survey on Vassiliev Invariants for knots*, "Mathematics and Education in Mathematics", Proceedings of the XXVII. Spring Conference of the Union of Bulgarian Mathematicians, 1998, 37–47.
- [St5] *On enumeration of chord diagrams and asymptotics of Vassiliev invariants*, Doctor thesis, Freie University Berlin, 1998.
- [St6] *Gauß sum invariants, Vassiliev invariants and braiding sequences*, J. Of Knot Theory and Its Ram. **9(2)** (2000), 221–269.
- [St7] *On finiteness of Vassiliev invariants and a proof of the Lin-Wang conjecture via braiding polynomials*, J. Of Knot Theory and Its Ram. **10(5)** (2001), special volume for the proceedings of the International Conference on Knot Theory "Knots in Hellas, 98", 769–780.
- [St8] *Vassiliev invariants on fibered and mutually obverse knots*, J. Of Knot Theory and Its Ram. **8(4)** (1999), 511–519.
- [St9] *The braid index and the growth of Vassiliev invariants*, J. Of Knot Theory and Its Ram. **8(6)** (1999), 799–813.
- [St10] *On the number of chord diagrams*, Discr. Math. **218** (2000), 209–233.
- [St11] *Genera of knots and Vassiliev invariants*, J. Of Knot Theory and Its Ram. **8(2)** (1999), 253–259.
- [St12] *On some restrictions to the values of the Jones polynomial*, Indiana Univ. Math. J. **54 (2)** (2005), 557–574.
- [St13] *Positive knots, closed braids and the Jones polynomial*, math/9805078, Ann. Scuola Norm. Sup. Pisa Cl. Sci. **2(2)** (2003), 237–285.
- [St14] *Some minimal degree Vassiliev invariants not realizable by the HOMFLY and Kauffman polynomial*, C. R. Acad. Bulgare Sci. **54(4)** (2001), 9–14.
- [St15] *Mutant links distinguished by degree 3 Gauss sums*, Proceedings of the International Conference on Knot Theory "Knots in Hellas, 98", Series on Knots and Everything **24**, World Scientific, 2000.
- [FS] *New knot and link invariants*, joint with T. Fiedler, Proceedings of the International Conference on Knot Theory "Knots in Hellas, 98", Series on Knots and Everything **24**, World Scientific, 2000.
- [St16] *Gauss sums on almost positive knots*, Compositio Mathematica **140(1)** (2004), 228–254.
- [St17] *The granny and the square tangle and the unknotting number*, Topol. Appl. **117** (2002), 59–75.
- [St18] *Knots of genus one*, Proc. Amer. Math. Soc. **129(7)** (2001), 2141–2156.
- [St19] *The Conway Vassiliev invariants on twist knots*, Kobe J. Math. **16(2)** (1999), 189–193.
- [St20] *Vassiliev invariants and rational knots of unknotting number one*, math/9909050, Topology **42(1)** (2003), 227–241.
- [St21] *The crossing number and maximal bridge length of a knot diagram*, with an appendix by M. Kidwell, Pacific J. Math. **210(1)** (2003), 189–199.
- [St22] *Polynomial values, the linking form and unknotting numbers*, math.GT/0405076, Math. Res. Lett. **11(5-6)** (2004), 755–769.

- [St23] *Determinants of Knots and Diophantine equations*, accepted by Acta Arithmetica
- [St24] *Square numbers, spanning trees and invariants of achiral knots*, *math.GT/0003172*, *Comm. Anal. Geom.* **13(3)** (2005), 591–631.
- [St25] *The Jones polynomial, genus and weak genus of a knot*, *Ann. Fac. Sci. Toulouse VIII(4)* (1999), 677–693.
- [St26] *On Unknotting Numbers and Knot Trivadjacency*, *On unknotting numbers and knot trivadjacency. Math. Scand.* **94(2)** (2004), 227–248.
- [St27] *A property of the skein polynomial with an application to contact geometry*, *math.GT/0008126*, to appear in *Jour. Differential Geom.*
- [St28] *On the unknotting number of minimal diagrams*, *Mathematics of Computation* **72(244)** (2003), 2043–2057.
- [St29] *Branched cover homology and  $Q$  evaluations*, *Osaka J. Math.* **39(1)** (2002), 13–21.
- [St30] *Rational knots and a theorem of Kanenobu*, *Exper. Math.* **9(3)** (2000), 473–478.
- [St31] *Fibonacci numbers and the ‘fibered’ Bleiler conjecture*, *Int. Math. Res. Notices* **23** (2000), 1207–1212.
- [St32] *The signature of 2-almost positive knots*, *J. Of Knot Theory and Its Ram.* **9(6)** (2000), 813–845.
- [St33] *Some examples related to 4-genera, unknotting numbers, and knot polynomials*, *Jour. London Math. Soc.* **63(2)** (2001), 487–500.
- [St34] *On the coefficients of the link polynomials*, *Manuscr. Math.* **110(2)** (2003), 203–236.
- [St35] *Some inequalities between knot invariants*, *Internat. J. Math.* **13(4)** (2002), 373–393.
- [St36] *On the crossing number of positive knots and braids and braid index criteria of Jones and Morton-Williams-Franks*, *Trans. Amer. Math. Soc.* **354(10)** (2002), 3927–3954.
- [St37] *Some applications of Tristram-Levine signatures*, *Adv. Math.* **194(2)** (2005), 463–484.
- [KS] *Examples Relating to the Crossing Number, Writhe, and Maximal Bridge Length of Knot Diagrams*, joint with M. Kidwell, *Mich. Math. J.* **51(1)** (2003), 3–12.
- [STV] *The canonical genus of a classical and virtual knot*, joint with V. Tchernov and A. Vdovina, *Geometriae Dedicata* **95(1)** (2002), 215–225.
- [St38] *On the number of links and link polynomials*, *Quart. J. Math. Oxford* **55(1)** (2004), 87–98.
- [St39] *The skein polynomial of closed 3-braids*, *J. Reine Angew. Math.* **564** (2003), 167–180.
- [HS] *Examples of knots without minimal string Bennequin surfaces*, joint with M. Hirasawa, *Asian Journal Math.* **7(3)** (2003), 435–446.
- [St40] *On the Polyak-Viro Vassiliev invariant of degree 4*, *Canad. Math. Bull.* **49(4)** (2006), 609–623.
- [SV] *Counting alternating knots by genus*, joint with A. Vdovina, *Math. Ann.* **333** (2005), 1–27.
- [St41] *Graphs, determinants of knots and hyperbolic volume*, accepted by *Pacific J. Math.*
- [St42] *On polynomials and surfaces of variously positive links*, *Jour. Europ. Math. Soc.* **7(4)** (2005), 477–509.
- [MS] *The Alexander polynomial of planar even valence graphs*, joint with K. Murasugi, *Adv. Appl. Math.* **31(2)** (2003), 440–462.
- [St43] *Newton-like polynomials of links*, *Enseign. Math. (2)* **51(3-4)** (2005), 211–230.
- [SSW] *Euclidean Mahler measure and twisted links*, joint with D. S. Silver and S. G. Williams, *Algebr. Geom. Topol.* **6** (2006), 581–602.
- [St44] *Hard to identify (non-)mutations*, *Math. Proc. Cambridge Philos. Soc.* **141(2)** (2006), 281–285.
- [St45] *Square numbers and polynomial invariants of achiral knots*, *Math. Z.* **255(4)** (2007), 703–719.
- [St46] *Genus generators and the positivity of the signature*, *Algebr. Geom. Topol.* **6** (2006), 2351–2393.
- [St47] *On cabled knots and Vassiliev invariants (not) contained in knot polynomials*, to appear in *Canad. J. Math.*
- [St48] *Some examples related to knot sliceness*, to appear in *J. Pure Applied Algebra*
- [St49] *Generating functions, Fibonacci numbers, and rational knots*, *J. Algebra* **310(2)** (2007), 491–525.
- [St50] *Bennequin’s inequality and the positivity of the signature*, accepted by *Trans. Amer. Math. Soc.*
- [St51] *5-moves and Montesinos links*, accepted by *J. Math. Soc. Japan*

[St52] *Tait's conjectures and odd crossing number amphicheiral knots*, accepted by Bull. Amer. Math. Soc.

Partial contributions to the following papers and monographs:

[Fi] Th. Fiedler, *Gauss Diagram Invariants for Knots and Links*, Kluwer Academic Publishers, Mathematics and Its Applications Vol **532** (2001).

[Fi2] ——— " ———, *Gauss diagram invariants for knots which are not closed braids*, Math. Proc. Cambridge Philos. Soc. **135(2)** (2003), 335–348.

[Mo] H. R. Morton (ed.), *Problems*, Ser. Knots Everything **24** (Knots in Hellas '98, Delphi), World Sci. Publishing 2000, 547–559.

[Oh] T. Ohtsuki (ed.), *Problems on invariants of knots and 3-manifolds*, Geometry and Topology Monographs **4** (2002) (Invariants of knots and 3-manifolds, Kyoto 2001), 377–572.

[Za] D. Zagier, *Vassiliev invariants and a strange identity related to the Dedekind eta-function*, Topology **40(5)** (2001), 945–960.