

## References

- [Ad] C. C. Adams, *Das Knotenbuch*, Spektrum Akademischer Verlag, Berlin, 1995 (*The knot book*, W. H. Freeman & Co., New York, 1994).
- [Ai] M. Aigner, *Diskrete Mathematik*, Vieweg, Wiesbaden/Braunschweig, 1993.
- [Al] J. W. Alexander, *Topological invariants of knots and links*, Trans. Amer. Math. Soc. **30** (1928), 275–306.
- [AM] S. Akbulut and J. D. McCarthy, *Casson's invariant for oriented 3-spheres*, Mathematical notes **36**, Princeton, 1990.
- [An] G. E. Andrews, *The theory of partitions*, Encyclopedia of Mathematics and its Applications **2**, Addison-Wesley, Reading, 1976.
- [AH] K. I. Appel and W. Haken, *Every planar map is four colorable*, Contemp. Math. **98**, Amer. Math. Soc., Providence, 1989.
- [Be] J. S. Beissinger, *Enumeration of irreducible combinatorial objects*, Jour. Comb. Theory (A) **38** (1985) 143–169.
- [Bo] A. Bouchet, *Circle graph obstruction*, Jour. Comb. Theory (B) **60** (1994) 107–144.
- [BN] D. Bar-Natan, *Non-associative tangles*, to appear in “The Georgia Inter. Topology Conference proceedings”.
- [BN2] —— ” —— , *On the Vassiliev knot invariants*, Topology **34** (1995), 423–472 .
- [BN3] —— ” —— , *Vassiliev and quantum invariants for braids*, Preprint.
- [BN4] —— ” —— , *Vassiliev Homotopy String Link Invariants*, Jour. of Knot Theory and its Ramifications, to appear.
- [BN5] —— ” —— , *Lie algebras and the Four Color Theorem*, Århus University preprint, August 1995. See also q-alg/9606016.
- [BS] —— ” —— and A. Stoimenow, *The Fundamental Theorem of Vassiliev invariants*, “Geometry and Physics”, Lecture Notes in Pure & Appl. Math. **184**, M. Dekker, New York, 1996, 101–134.
- [BN6] —— ” —— , *Bibliography of Vassiliev invariants*, available from `ftp://math.harvard.edu/dror`
- [BN7] —— ” —— , *Some computations related to Vassiliev invariants*, available via `ftp` from `ftp.ma.huji.ac.il`, subdirectory `drorbn`.
- [BG] —— ” —— und S. Garoufalidis, *On the Melvin-Morton-Rozansky Conjecture*, Juli 1994, Preprint.
- [Bi] J. S. Birman, *New Points of View in Knot Theory*, Bull. Amer. Math. Soc. **28** (1993) 253–287.
- [BL] —— ” —— and X-S. Lin, *Knot polynomials and Vassiliev's invariants*, Invent. Math. **111** (1993) 225–270.
- [Ca] A. Cayley, *On the analytical forms called trees*, American J. of Math. **4**, 1881, 266–268.
- [CD] S. V. Chmutov and S. V. Duzhin, *An upper bound for the number of Vassiliev knot invariants*, Jour. of Knot Theory and its Ramifications **3**(2) (1994), 141–151.
- [CD2] —— ” —— and —— ” —— , *A lower bound for the number of Vassiliev knot invariants*, preprint.
- [Co] J. H. Conway, *On enumeration of knots and links*, in “Computational Problems in abstract algebra” (J. Leech, ed.), 329–358. Pergamon Press, 1969.
- [De] J. Dean, *Many classical knot invariants are not Vassiliev invariants*, Jour. of Knot Theory and its Ramifications, **3**(1) (1994), 7–9.
- [DP] S. Dulucq, J.-P. Penaud, *Cordes, arbres et permutations*, Discr. Math. **117** (1993) 89–105.
- [Dr] V. G. Drinfel'd, *On quasitriangular Quasi-Hopf algebras and a group closely connected with  $\text{Gal}(\bar{\mathbb{Q}}/\mathbb{Q})$* , Leningrad Math. J. **2** (1991) 829–860.

- [Fi] T. Fiedler, *A small state sum for knots*, Topology **32** (2) (1993), 281–294.
- [HP] F. Harary and E. Palmer, *Graphical Enumerations*, Acad. Press, New York, 1973.
- [G] M. N. Goussarov, *On  $n$ -equivalence of knots and invariants of finite degree*, Advances in Soviet Math. **18** (1994), AMS, 173–192.
- [HC] *Handbook of Combinatorics*, Vol. **II** (P. L. Graham, M. Grötschel and L. Lovácz, eds.), North-Holland, 1995.
- [Hu] M. Hutchings, *Integration of singular braid invariants and graph cohomology*, Harvard University preprint, May 1995.
- [H] P. Freyd, J. Hoste, W. B. R. Lickorish, K. Millett, A. Ocneanu and D. Yetter, *A new polynomial invariant of knots and links*, Bull. Amer. Math. Soc. **12** (1985), 239–246.
- [HS] X. He, D. Sher, *Non-isotopic configuration points on a circle*, Discr. Appl. Math. **59** (1995), 33–50.
- [J] V. F. R. Jones, *On knot invariants related to some statistical mechanical models*, Pacific. J. Math. **137** (1989).
- [J2] —— ” ——, *A polynomial invariant of knots and links via von Neumann algebras*, Bull. Amer. Math. Soc. **12** (1985), 103–111.
- [K] C. Kassel, *Quantum Groups*, Springer-Verlag GTM **155**, Heidelberg 1994.
- [Ka] L. H. Kauffman, *Knots and physics* (second edition), World Scientific, Singapore 1993.
- [Ka2] —— ” ——, *An invariant of regular isotopy*, Trans. Amer. Math. Soc. **318** (1990), 417–471.
- [Ka3] —— ” ——, *The Conway polynomial*, Topology **20** (1981) 101–108.
- [Ka4] —— ” ——, *New invariants in the theory of knots*, Amer. Math. Mon. **3** (1988), 195–242.
- [Ko] M. Kontsevich, *Vassiliev's knot invariants*, Adv. in Sov. Math., **16(2)** (1993), 137–150.
- [Li] V. Liskovets, *personal communication*.
- [Lo] J. L. Loday, *Cyclic homology*, Grundlehren der mathematischen Wissenschaften, vol. **301**, Springer, Berlin, 1992.
- [Lo2] —— ” ——, *Algèbres ayant deux opérations associatives (digèbres)*, C. R. Acad. Sci. Paris, **321**, series I (1995), 141–146.
- [LMi] P. Leroux and B. Miloudi, *Généralisations de la formule d'Otter*, Ann. Sci. Math. Québec, **16** (1) (1992) 53–80.
- [LM] W. B. R. Lickorish and K. C. Millett, *A polynomial invariant for oriented links*, Topology **26** (1) (1987), 107–141.
- [Me] W. W. Menasco, *Closed incompressible surfaces in alternating knot and link complements*, Topology **23** (1) (1986), 37–44.
- [MT] —— ” —— and M. B. Thistlethwaite, *The Tait flyping conjecture*, Bull. Amer. Math. Soc. **25** (2) (1991), 403–412.
- [MM] J. Milnor and J. Moore, *On the structure of Hopf algebras*, Annals of Math. **81** (1965) 211–264.
- [Ng] K. Y. Ng, *Groups of ribbon knots*, q-alg/9502017 and Columbia University preprint, February 1995.
- [Mu] K. Murasugi, *Jones polynomial and classical conjectures in knot theory*, Topology **26** (1987), 187–194.
- [NS] —— ” —— and T. Stanford, *On Goussarov's groups of knots*, Columbia University and University of California at Berkeley preprint, September 1995.
- [NW] A. Nijenhuis, H. Wilf, *Enumeration of connected graphs and linked diagrams*, Jour. Comb. Theory (A) **27** (1979) 356–359.
- [Po] G. Pólya, *Kombinatorische Anzahlbestimmungen für Gruppen, Graphen und chemische Verbindungen*, Acta Math. **68** (1937), 145–254.

- [Po] M. Polyak, *Invariants of plane curves and fronts via Gauss diagrams*, Preprint.
- [PV] ——— ” ——— and O. Viro, *Gauss diagram formulas for Vassiliev invariants*, Int. Math. Res. Notes **11** (1994) 445–454.
- [PV2] ——— ” ——— and ——— ” ———, to appear.
- [Pi] S. Piunikhin, *Combinatorial expression for universal Vassiliev link invariant*, March 1993, Preprint.
- [RT] N. Yu. Reshetikhin and V. G. Turaev, *Ribbon graphs and their invariants derived from quantum groups*, Commun. Math. Phys. **127** (1990) 1–26.
- [Re] C. Reutenauer, *Theorem of Poincaré-Birkhoff-Witt, logarithm and symmetric group representations of degrees equal to Stirling numbers*, Springer Lecture Notes in Math. **1234** (1986), 267–284.
- [Ri] J. Riordan, *An Introduction to combinatorial analysis*, Wiley, New York, 1958.
- [Sl] N. J. A. Sloane, *The On-Line Encyclopedia of Integer Sequences*, accessible at the e-mail address sequences@research.att.com.
- [Sa] T. Stanford, *The functoriality of Vassiliev-type invariants of links, braids, and knotted graphs*, Jour. of Knot Theory and its Ramifications **3**(3) (1994), 247–262.
- [S] P. R. Stein, *A class of linked diagrams, I. Enumeration*, Jour. Comb. Theory (A) **24** (1978) 357–366.
- [SE] ——— ” ——— and C. J. Everett, *A class of linked diagrams, II. Asymptotics*, Discr. Math., **21** (1978) 309–318.
- [St] A. Stoimenow, *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*, preprint.
- [St3] ——— ” ———, *On Harrison cohomology and a conjecture by Drinfel'd*, Humboldt University Berlin, 1996.
- [St4] ——— ” ———, *Gauß sum invariants, Vassiliev invariants and braiding sequences*, to appear.
- [St5] ——— ” ———, *New knot and link invariants*, preprint, April 1997.
- [St6] ——— ” ———, *Vassiliev invariants are bounded by factorial over exponential in the degree*, preprint, Humboldt University Berlin, 1996.
- [St7] ——— ” ———, *An Introduction to Vassiliev Invariants*, Graduated Studies Working and Time Plan, Humboldt University Berlin, 1995.
- [St8] ——— ” ———, *On the number of chord diagrams*, preprint.
- [St9] ——— ” ———, *Connected and tree-connected chord diagrams*, preprint, Humboldt University Berlin, 1996.
- [St10] ——— ” ———, *The dimension of a graded commutative algebra and asymptotics of Vassiliev invariants*, preprint.
- [St11] ——— ” ———, *Positive knots, closed braids and the Jones polynomial*, preprint.
- [SK] T. L. Saaty and P. C. Kainen, *The four color problem, assaults and conquest*, McGraw-Hill, New-York, 1977.
- [Th] M. B. Thistlethwaite, *A spanning tree expansion for the Jones polynomial*, Topology **26** (1987), 297–309.
- [Tr] R. Trapp, *Twist sequences and Vassiliev invariants*, Jour. of Knot Theory and its Ramifications **3**(3) (1994), 391–405.
- [Tr] H. F. Trotter, *Non-invertible knots exist*, Topology **2** (1964) 341–358.
- [T] V. G. Turaev, *Quantum invariants for knots and 3-manifolds*, de Gruyter, Berlin, 94.
- [Va] V. A. Vassiliev, *Cohomology of knot spaces*, Theory of Singularities and its Applications (Providence) (V. I. Arnold, ed.), Amer. Math. Soc., Providence, 1990.
- [Vo] P. Vogel, *Algebraic structures on modules of diagrams*, Université Paris VII preprint, July 1995.

[Vo2] —— ”——, to appear.

[We] D. J. A. Welsh, *On the number of knots and links*, Sets, graphs and numbers (Budapest, 1991), 713–718, Colloq. Math. Soc. János Bolyai, **60**, North-Holland, Amsterdam, 1992.