

Curriculum Vitae of Dale Rolfsen

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PERSONAL DATA:

Born February 3, 1942 in Chicago
Citizenship: Dual USA, CANADA
Married to Gloria Rolfsen, children: Amy and Catherine

EDUCATION:

Illinois Institute of Technology, BSc 1963
University of Wisconsin M.Sc. 1965
University of Wisconsin Ph.D. 1967

FIELDS OF INTEREST:

Topology, knot theory, geometry, algebra, dynamics

PROFESSIONAL EMPLOYMENT:

Visiting member, Inst. for Advanced Study, Princeton, 1967-69.
Visiting fellow, Eidgenossische Technische Hochschule, Zurich, 1968.
Visiting member, Tata Institute of Fund. Research, Bombay, 1969-70.
Faculty, University of British Columbia, 1970-present. Present rank: Professor. Department head: 1989-1994.
Visiting Professor, University of Wyoming, 1973.
Visiting Professor, University of Sussex, 1984.
Visiting Professor, University of Hawaii, 1985.
Visiting Professor, University of California, Los Angeles, 1986.
Visiting Professor, Eidgenossische Technische Hochschule, Zurich, and University of Geneva, 1994-95

PROFESSIONAL MEMBERSHIPS:

American Mathematical Society, Book Prize Committee (2003-)
Canadian Mathematical Society, (Board of Directors 1987-1990, Human Rights Officer 2002-)
Mathematical Sciences Research Institute, Trustee (1997-2002)
Pacific Institute for the Mathematical Sciences, UBC Site Director (1998-2003)
New Zealand Institute for Mathematics and Applications, Scientific Advisory Committee (2002-)

GRANTS and AWARDS:

Canadian NRC Research Grant, 1971-1980
Canadian NSERC Research Grant, 1980-present
U.K.SERC Fellowship, 1984
NATO Fellowship, 1989
NSERC Equipment Grants, 1989, 1990, 1998
Swiss-Canadian International Exchange Grant, 1995
U.K.SERC Grant, 1995.
Prof. Invité, Univ. de Provence, Marseille, May 1995.
Prof. Invité, Inst. H. Poincaré, Paris, May 1996.
Prof. Invité, Univ. P. Sabatier, Toulouse, April 1997.
Prof. Invité, Univ. Bourgogne, Dijon, May 1998 and May 2000.
Member, MSRI program in Low Dimensional Topology, Jan-April 1997.
Distinguished Scholar, Peter Wall Institute for Advanced Study, 2000-01.
NSF conference grant for “Knots in Vancouver”, summer 2004
Docteur Honoris Causis awarded by Université de Caen, November 2007.

BOOKS:

D. Rolfsen, Tutorial on the braid groups, Chapter 1 in *Braids*, Lecture Note Series 19(2009), Institute for Mathematical Sciences, National University of Singapore, World Scientific publ.
P. Dehornoy, I. Dynnikov, D. Rolfsen and B. Wiest, *Ordering braids*, Amer. Math. Soc. Mathematical Surveys and Monographs 148(2008), vii + 323 pp.
D. Rolfsen, *Knots and Links*, AMS Chelsea, 2003, xiv + 439 pp.
P. Dehornoy, I. Dynnikov, D. Rolfsen and B. Wiest, *Why are braids orderable?*, Soc. Math. Français, Panoramas et Synthèses 14 (2002), xiii + 190 pp.
S. Matveev and D. Rolfsen, Zeeman’s Collapsing Conjecture, refereed chapter in *Algebraic topology of 2-complexes and group theory*, ed. C. Hog-Angeloni, W. Metzler and A. Zieradski, Cambridge University Press (1993), chapter 11, pp. 335-364.
D. Rolfsen (editor), *Knot Theory and Manifolds*, Lecture Notes in Mathematics no. 1144, Springer 1985, 163 pp.

RESEARCH PUBLICATIONS:

A. Clay and D. Rolfsen, Ordered groups, eigenvalues, knots, surgery and L-spaces, arXiv:1004.3615v2.
P. A. Linnell, A. H. Rhemtulla and D. Rolfsen, Discretely ordered groups, *J. Algebra and Number Theory* (to appear), arXiv:0808.2686v2.
P. A. Linnell, A. H. Rhemtulla and D. Rolfsen, Invariant group orderings and Galois conjugates, *J. Algebra* 319(2008), 4891-4898. arXiv: math.GR/0605344
A. Clay and D. Rolfsen, Densely ordered braid subgroups, *J. Knot Theory and Ramifications*, 16(2007), 869-877.
J. Mulholland and D. Rolfsen, Local indicability and commutator subgroups of Artin groups, preprint on arXiv: math.GR/0606116
B. Perron and D. Rolfsen, Invariant ordering of surface groups and 3-manifolds which fibre over S^1 , *Math. Proc. Camb. Phil. Soc.* 141(2006), 273-280.
S. Boyer, D. Rolfsen and B. Wiest, Orderable 3-manifold groups, *Ann. Inst. Fourier* 55(2005), 243-288.

- D. Rolfsen, Mappings of nonzero degree between 3-manifolds: a new obstruction, *Advances in Topological Quantum Field Theory*, ed. J. Bryden, Kluwer Academic 2004, 267-273.
- B. Perron and D. Rolfsen, On orderability of fibred knot groups, *Math. Proc. Camb. Phil. Soc.* 135(2003), 147-153.
- D. Gillman and D. Rolfsen, Untwisting Heegaard diagrams in 3-space, arXiv: math.GT/0310426
- D. Rolfsen, New developments in the theory of Artin's braid groups, *Proc. Conf. on Quantum Invariants of 3-manifolds, Topology and Applications* 127(2003), 77-90.
- D. Kim and D. Rolfsen, An ordering for groups of pure braids and fibre-type hyperplane arrangements, *Canad. J. Math.* 55(2002), 822-838.
- A. Rhemtulla and D. Rolfsen, Local indicability in ordered groups: braids and elementary amenable groups, *Proc. Amer. Math. Soc.* 130(2002), 2569-2577.
- D. Rolfsen and B. Wiest, Free group automorphisms, invariant orderings and topological applications, *Algebraic Geom. Topology* 1(2001), 311-320 (electronic).
- L. Paris and D. Rolfsen, Geometric subgroups of mapping class groups, *Jour. Reine Angew. Math.* 521(2000), 47-83.
- D. Austin and D. Rolfsen, Homotopy of knots and the Alexander polynomial, *Canadian Math. Bull.* 42(1999), 257-262.
- R. Fenn, M. Greene, D. Rolfsen, C. Rourke and B. Wiest, Ordering the braid groups, *Pacific J. Math* 191(1999), 49-74.
- L. Paris and D. Rolfsen, Geometric subgroups of surface braid groups, *Annals Inst. Fourier* 49(1999), 417-472.
- D. Rolfsen and J. Zhu, Braids, ordered groups and zero divisors, *Jour. Knot Theory and Ramifications* 7(1998), 837-841.
- D. Rolfsen, Braid subgroup normalisers, commensurators and induced representations, *Invent. Math.* 130(1997), 575-587..
- Z. Li and D. Rolfsen, Classification of punctured 3-manifolds in $\text{Triod} \times I \times I$, *Canadian Math. Bulletin* 40(1997), 370-375..
- A. Kholodenko and D. Rolfsen, Knot complexity and related observables from path integrals for semiflexible polymers, *J. Physics A* 29(1996), 5677-5691.
- R. Fenn, D. Rolfsen and J. Zhu, Centralisers in braid groups and singular braid monoids, *L'Enseignement Math* 42(1996), 75-96.
- S. Matveev and D. Rolfsen, Spines and embeddings of n-manifolds, *Journal of the London Mathematical Society* 59(1999), 359-368.
- V. F. R. Jones and D. Rolfsen, A theorem regarding 4-braids, and the $V=1$ problem, in *Quantum Topology* (ed. D. Yetter), World Scientific (1994), 127-135.
- D. Rolfsen, Global mutation of knots, *J. Knot Theory and its Ramifications*, 3(1994), 407-417.
- D. Gillman, S. Matveev and D. Rolfsen, Collapsing and reconstruction of manifolds, *Contemporary Mathematics* 164 (1994), 35-39.
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- D. Rolfsen, Three dimensional manifolds, groups and collapsing: some persistent conjectures, *Gazette Math.* (1993).
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- K. Millett and D. Rolfsen, A theorem of Borsuk-Ulam type for Seifert-fibered 3-manifolds, *Proc. Camb. Phil. Soc.* (1986)100, 523-532.
- R. Fenn and D. Rolfsen, Spheres may link homotopically in four- space, *J. London Math. Soc.* (2) 34(1986) 177-184.
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