

Curriculum Vitae

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Dual Citizen: Canada and USA
Languages: English (native speaker), French (fluent),
Japanese, Spanish, and German (conversational)

Academic History

B.Sc. (June 1988) in Mathematical Physics (First Class Honours, G.P.A. = 4.00) with minors in Computer Science and Nuclear Science. Simon Fraser University, Burnaby, Canada.

M.Sc. (February 1993) in Mathematics. Thesis: *The Computation of Galois Groups over Function Fields* under the supervision of John McKay (of Concordia University, Montreal). McGill University, Montreal, Canada.

Mineur (juin 1997) en études est-asiatiques (Palmarès de la doyenne, G.P.A. = 3.90). Université de Montréal, Canada.

Ph.D. (June 2000) in Mathematics. Thesis: *The Culler-Shalen Seminorms of Pretzel Knots* under the supervision of Steven Boyer (of UQAM, Montreal). McGill University, Montreal, Canada.

Employment History

August 2009 - Present Professor, Department of Mathematics and Statistics, CSU, Chico.

August 2005 - July 2009 Associate Professor, Department of Mathematics and Statistics, CSU, Chico.

August 2000 - July 2005 Assistant Professor, Department of Mathematics and Statistics, CSU, Chico.

Selected Papers

- N. Ho, J. Godzik, J. Jones, T.W. Mattman, and D. Sours, ‘Invisible knots and rainbow rings: knots not determined by their determinants,’ (2020) *Math. Mag.* **93** 4–18.
- M. Lipton, E. Mackall, T.W. Mattman, M. Pierce, S. Robinson, J. Thomas, and I. Weinschelbaum, ‘Six variations on a theme: almost planar graphs,’ (2018) *Involve* **11** 413–448.
- H. Kim, H.J. Lee, M. Lee, T.W. Mattman, and S. Oh, ‘A new intrinsically knotted graph with 22 edges,’ *Topology Appl.* **228** (2017) 303–317.
- H. Kim, T.W. Mattman, and S. Oh, ‘Bipartite intrinsically knotted graphs with 22 edges,’ *J. Graph Theory* **85** (2017) 568–584.
- E. Flapan, T.W. Mattman, B. Mellor, R. Naimi, and R. Nikkuni, ‘Recent developments in spatial graph theory,’ *Contemp. Math.* **689** (2017) 81–102.
- T.W. Mattman and M. Pierce, 2017, ‘The K_{n+5} and $K_{3^2,1^n}$ families and obstructions to n -apex,’ *Contemp. Math.* **689** (2017) 137–158.
- J. Barsotti and T.W. Mattman, ‘Graphs on 21 edges that are not 2-apex,’ *Involve* **9** (2016) 591–621.
- M. Ishikawa, T.W. Mattman, and K. Shimokawa, ‘Tangle sums and factorization of A-polynomials,’ *New York J. Math* **21** (2015) 823–835.
- N. Goldberg, T.W. Mattman, and R. Naimi, ‘Many, many more intrinsically knotted graphs,’ *Algebraic & Geometric Topology* **14** (2014) 1801–1823.
- T.W. Mattman, ‘Graphs of 20 edges are 2-apex, hence unknotted,’ *Algebraic & Geometric Topology* **11** (2011) 691–718.
- T.W. Mattman and P. Solis, ‘A proof of the Kauffman-Harary conjecture,’ *Algebraic & Geometric Topology* **9** (2009) 2027–2039.
- M.L. Macasieb and T.W. Mattman, ‘Commensurability classes of $(-2, 3, n)$ pretzel knot complements,’ *Algebraic & Geometric Topology* **8** (2008) 1833–1853.
- M. Ishikawa, T.W. Mattman, and K. Shimokawa, ‘Exceptional surgeries and boundary slopes,’ *Osaka Journal of Mathematics* **43** (2006) 807–821.
- T.W. Mattman, K. Miyazaki, and K. Motegi, ‘Seifert fibered surgeries which do not arise from primitive/Seifert-fibered constructions’ *Transactions of the American Mathematical Society* **358** (2006) 4045–4055.
- T.W. Mattman, ‘Boundary slopes (nearly) bound cyclic slopes,’ *Algebraic & Geometric Topology* **5** (2005) 741–750.
- T.W. Mattman, ‘The Culler-Shalen seminorms of the $(-2, 3, n)$ pretzel knot,’ *The Journal of Knot Theory and its Ramifications* **11** (2002) 1251–1289.
- T.W. Mattman and J. McKay, ‘Computation of Galois Groups over Function Fields,’ *Math. Comp.* **66** (1997) 823–831.

Grants

- ‘Chico Topology Conference,’ (2020-21) \$24,991 NSF Conferences and Workshops Award.
- ‘Research Experiences in Mathematics for Undergraduates and Teachers,’ (2007-09) \$299,941 NSF Research Experiences for Undergraduates Site Award.
- ‘Research Experiences in Mathematics for Undergraduates and Teachers,’ (2004-06) \$199,517 NSF Research Experiences for Undergraduates Site Award.
- ‘Contemporary Research in Knot Theory,’ (Summers 2003-06) \$89,900 MAA/SUMMA Student Research Program.
- ‘Knot Theory for Preservice and Practicing Secondary Mathematics Teachers,’ (2002-04) \$75,000 NSF CCLI-Education Materials Development Grant.

Awards and Honours

- Visiting Professor Appointments:
 - Fall 2014, Simon Fraser University, Burnaby, Canada;
 - Spring 2008, Saitama University, Saitama, Japan;
 - Fall 2007, University of British Columbia, Vancouver, Canada;
 - Summer 2001, Research Institute for Mathematical Sciences, Kyoto, Japan.
- Outstanding Professor of 2011-12, California State University, Chico (one award annually among 500 faculty).
- Professional Achievement Honor, California State University, Chico, March, 2005 (10 awards annually).

Other Contributions

- Referee for *Proceedings of the AMS*, *Algebraic and Geometric Topology*, *Communications in Analysis and Geometry*, *Discrete Mathematics*, *The New York Journal of Mathematics*, *The Journal of Knot Theory and its Ramifications*, and *The Kyungpook Mathematical Journal*.
- Reviewer for *Mathematical Reviews* and the National Science Foundation.
- Since 2008, organizer of the Chico Topology Conference, a biennial conference drawing researchers from around the world.
- Co-organizer, AMS Special Session on Spatial Graphs, October, 2015, Fullerton, California.
- Faculty Advisor to Math Club (with Dr. L. Haws) and CSU, Chico chapter of Pi Mu Epsilon.
- (With Drs. K. McGown and J. Lind) Coach of the CSU, Chico team for the Putnam Math Competition.