Mark Brittenham
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Date of birth: April 30, 1961
Place of birth: Milwaukee, Wisconsin

Education

May 1990:	Ph.D., Cornell University Dissertation: Essential Laminations in Seifert-fibered Spaces Advisor: Allen Hatcher
January 1986:	M.A., Cornell University
January 1983:	B.S., SUNY at Stony Brook (with highest honors)

Research Interests

Geometric topology; low-dimensional topology; knot theory; foliations and laminations in 3-manifolds

Teaching/Research Experience

1997-present:	Assistant Professor, University of North Texas Courses taught: precalculus, calculus I/II, topology
1996-1997:	Visiting Assistant Professor, Vassar College Courses taught: calculus and discrete mathematics, multivariate calculus, excursions in mathematics
August, 1996:	member, Mathematical Sciences Research Institute
1995 - 1996:	Visiting Assistant Professor, New Mexico State University Courses taught: calculus, vector calculus, differential equations, real analysis
1994 - 1995:	Postdoctoral Fellow, University of Texas at Austin
1991 - 1994:	Instructor, University of Texas at Austin Graduate courses taught: foliations of 3-manifolds Undergraduate courses taught: calculus, linear algebra, topology, abstract algebra, real analysis

Other activities:

1993-1994: Co-organizer, Introduction to Research lecture series

1990-1991: Member, Institute for Advanced Study, Princeton, NJ

Fall 1989, Fall 1988: Lecturer, Cornell University

Courses taught: calculus I

Fellowships/Awards/Grants

1998-1999:	Faculty Research Grant University of North Texas
1998:	Junior Faculty Summer Research Fellowship University of North Texas
1997-present:	NSF grant no. DMS-9704811 (3 years) Project title: 'Essential laminations in 3-manifolds'
1994-1997:	NSF grant no. DMS-9400651 (3 years) Project title: 'Essential laminations in 3-manifolds'
1992-1994:	NSF grant no. DMS-9203435 (2 years) Project title: 'Essential laminations in 3-manifolds'
1987-1988:	Alfred P. Sloan Dissertation Fellowship
Spr. 1989, Spr. 1987, Spr. 1985:	Hutchinson Fellowship
1983-1984:	Sage Graduate Fellowship
May 1983:	Stony Brook Foundation Award

Invited Talks

1. Upstate New York Topology Seminar, Syracuse, NY, November 10-12, 1989
   Title: Seifert-fibered spaces which contain no essential laminations.

2. Saint Louis University, St. Louis, MO, colloquium, February 21, 1990
   Title: Essential laminations in Seifert-fibered spaces.

3. Georgia Topology Conference, Athens, GA, August 1-5, 1990
   Title: Essential laminations in Seifert-fibered spaces.

4. Rutgers University, Newark, NJ, topology seminar, February 28, 1991
   Title: Haken normal form for essential laminations.

5. Low-dimensional Topology Conference, Knoxville, TN, May 18-23, 1992
   Title: Controlling essential laminations.

6. Texas Geometry/Topology Conference, Houston, TX, April 16-18,1993
   Title: Essential laminations in non-Haken 3-manifolds.

7. Joint AMS - SMM meeting, Merida, Yucatan, Mexico, December 1-4, 1993
   Special session on geometric topology in low dimensions
   Title: Essential laminations and cylindrical components.

8. New Mexico State University, Las Cruces, NM, colloquium, December 1, 1994
   Title: Exploring 2-bridge knots.

9. New Mexico Topology/Geometry Seminar, Albuquerque, NM, October 27-28, 1995
   Title: Knots, Property P, and essential laminations.

10. Cascade Topology Seminar, Tacoma, WA, November 4-5, 1995
    Title: Persistent laminations from Seifert surfaces, or How to build your very own knot with (strong) Property P.

11. Joint AMS - SMM meeting, Guanajuato, Mexico, Nov. 29 - Dec. 2, 1995
    Special session on low dimensional topology
    Title: (Exceptional) Seifert-fibered spaces and Dehn surgery on hyperbolic knots.

12. University of Texas at El Paso, El Paso, TX, February 16, 1996
    Undergraduate Mathematics Club
    Title: Knots and surfaces.
    Departmental Colloquium
    Title: The care and feeding of essential laminations in 3-manifolds.

13. AMS Meeting, University of Iowa, Iowa City, IA, March 22-23, 1996
    Special session on Topology of 3-manifolds
    Title: Graph manifolds and taut foliations.

14. Cornell University, Ithaca, NY, topology seminar, November 26, 1996
    Title: Essential laminations are everywhere.

15. Univ. de Quebec á Montreal, topology seminar, March 21, 1997
    Title: Essential laminations as hyperbolic 3-manifold detectors.

16. Colloquium of Quebec Graduate Students, Univ. de Montreal, March 22-23, 1997
    Plenary lecture
    Title: Foliations from the topological point of view.

17. Catskill-Taconic Topology Day, Vassar College, May 10, 1997
    Title: A laminator's 'most-wanted' list of knots.

18. Georgia Topology Conference, Athens, GA, July 30 - August 3, 1997
    Title: Constructing persistent laminations for fun and profit.

19. New Mexico State University, Friday seminar, October 3, 1997
    Title: Playing checkers with knots.

20. University of Texas at Austin, topology seminar, November 24, 1997
    Title: When incompressible tori meet essential laminations.

21. Nara Women's University, Nara, Japan, January 5-8, 1998
    Meeting on laminations in 3-manifolds
    Title: When incompressible tori meet essential laminations.

22. AMS meeting, Kansas State University, March 27-28. 1998
    Special session on Pictorial Methods in Low Dimensional Topology
    Title: Canonical genus, free genus, and volume.

23. AMS meeting, Univ. of California at Davis, April 25-26, 1998
    Special session on Recent Results on the Topology of Three-Manifolds
    Title: Canonical genus, free genus, and volume.

24. AMS meeting, Winston-Salem, NC, October 9-10, 1998
    Special session on Geometry and Topology in dimension 3
    invitation accepted.

Papers and Preprints

1. *Essential laminations in Seifert-fibered spaces*, Topology **32** no.1 (1993), 61-85.
2. *Essential laminations in non-Haken 3-manifolds*, Topology and its Applications **53** (1993) 317-324.
3. *Essential laminations and deformations of homotopy equivalences* : *From essential pullback to homeomorphism*, Topology and its Applications bf 60 (1994) 249-265.
4. *Essential laminations and Haken normal form*, Pacific J. Math **168** (1995), 217-234.
5. *Essential laminations and Haken normal form* : *Laminations with no holonomy*, Comm. Anal. Geom. **3** (1995) 465-477.
6. *Essential laminations in* I*-bundles*, Trans. AMS **349** (1997) 1463-1485.
7. *Exceptional Seifert-fibered spaces and Dehn surgery on 2-bridge knots*, Topology **37** (1998) 665-672.
8. π_1*-injective, proper maps of open surfaces*, preprint (1989).
9. *Essential laminations and Haken normal form* : *Regular cell decompositions*, preprint (1992).
10. *Essential laminations and deformations of homotopy equivalences* : *The structure of pullbacks*, preprint (1994).
11. *Essential laminations in Seifert-fibered spaces* : *Boundary behavior*, to appear in Top. Appl.

12. (with Y.-Q. Wu) *The classification of Dehn surgeries on 2-bridge knots*, submitted for publication.
13. (with R. Naimi and R. Roberts) *Graph manifolds and taut foliations*, J Diff Geom **45** (1997) 446-470.
14. *Essential laminations, exceptional Seifert-fibered spaces, and Dehn filling*, J. Knot Thy. Ram. **7** (1998) 425-432
15. *Persistently laminar tangles*, submitted for publication.
16. *Incompressible tori and the space of leaves of a foliation*, preprint (1996).
17. *Persistent laminations from Seifert surfaces*, preprint (1998).
18. *Essential laminations in I-bundles: laminations with boundary*, in preparation.
19. (with R. Roberts) *When incompressible tori meet essential laminations*, to appear in Pacific J. of Math.
20. *Persistent laminations from surfaces: non-orientable spanning surfaces*, in preparation.
21. *Bounding canonical genus bounds volume*, preprint (1998).
22. *Free genus one knots with large volume*, in preparation.
23. *Foliations and the topology of 3-manifolds*, draft of a manuscript based on lectures at the University of Texas at Austin, spring 1993.

Other Activities

Reviewer for National Science Foundation

Reviewer for Brooks/Cole Publishing

Reviewer for Addison Wesley Longman Publishing

Referee for Pacific Journal of Mathematics

Referee for Communications in Analysis and Geometry

Referee for the Journal of Knot Theory and its Ramifications

Reviewer for Mathematical Reviews