CURRICULUM VITAE

Daniel C. Cohen

Personal

Born September 25, 1964, in San Pablo, California.
Married, two children.

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Education

B.S.	mathematics, *summa cum laude*	California Polytechnic State University, San Luis Obispo	1986
M.S.	mathematics	Northeastern University	1988
Ph.D.	mathematics	Northeastern University	1992

Employment

Visiting Research Assistant Professor	University of California, Davis	1992–1995
Assistant Professor	Louisiana State University	1995–2001
Honorary Fellow	University of Wisconsin	1999
Associate Professor	Louisiana State University	2001–
General Member	Mathematical Sciences Research Institute	2004

Publications

1. *On the Künneth formula for intersection cohomology*, with M. Goresky and L. Ji, Transactions of the American Mathematical Society **333** (1992), 63–69; MR1052904.
2. *Cohomology and intersection cohomology of complex hyperplane arrangements*, Advances in Mathematics **97** (1993), 231–266; MR1201844.
3. *On Milnor fibrations of arrangements*, with A. Suciu, Journal of the London Mathematical Society **51** (1995), 105–119; MR1310725.
4. *The Chen groups of the pure braid group*, with A. Suciu, in: The Čech Centennial: A Conference on Homotopy Theory, Contemporary Mathematics, vol. 181, American Mathematical Society, 1995, pp. 45–64; MR1320987.
5. *The braid monodromy of plane algebraic curves and hyperplane arrangements*, with A. Suciu, Commentarii Mathematici Helvetici **72** (1997), 285–315; MR1470093.
6. *Homology of iterated semidirect products of free groups*, with A. Suciu, Journal of Pure and Applied Algebra **126** (1998), 87–120; MR1600518.
7. *Morse inequalities for arrangements*, Advances in Mathematics **134** (1998), 43–45; MR1612383.
8. *Alexander invariants of complex hyperplane arrangements*, with A. Suciu, Transactions of the American Mathematical Society **351** (1999), 4043–4067; MR1475679.
9. *Characteristic varieties of arrangements*, with A. Suciu, Mathematical Proceedings of the Cambridge Philosophical Society **127** (1999), 33–53; MR1692519.

10. *On the cohomology of discriminantal arrangements and Orlik-Solomon Algebras*, in: Arrangement, Tokyo 1998, Advanced Studies in Pure Mathematics, vol. 27, Mathematical Society of Japan, 2000, pp. 27–49; MR1796892.
11. *Arrangements and local systems*, with P. Orlik, Mathematical Research Letters **7** (2000), 299–316; MR1764324.
12. *Monodromy of fiber-type arrangements and orbit configuration spaces*, Forum Mathematicum **13** (2001), 505–530; MR1830245.
13. *Some cyclic covers of complements of arrangements*, with P. Orlik, Topology and its Applications **118** (2002), 3–15; MR1877712.
14. *Lie algebras associated to fiber-type arrangements*, with F. Cohen and M. Xicoténcatl, International Mathematics Research Notices **2003**, no. 29, 1591–1621; MR1979686.
15. *Triples of arrangements and local systems*, Proceedings of the American Mathematical Society **130** (2002), 3025–3031; MR1908926.
16. *Gauss-Manin connections for arrangements, I. Eigenvalues*, with P. Orlik, Compositio Mathematica **136** (2003), 299–316; MR1977008.
17. *On representations and K-theory of the braid groups*, with A. Adem and F. Cohen, Mathematische Annalen **326** (2003), 515–542; MR1992276.
18. *Gauss-Manin connections for arrangements, II. Nonresonant weights*, with P. Orlik, American Journal of Mathematics **127** (2005), 569–594.
19. *Nonresonance conditions for arrangements*, with A. Dimca and P. Orlik, Annales de l'Institut Fourier (Grenoble) **53** (2003), 1883–1896; MR2038782.
20. *Resonant local systems on complements of discriminantal arrangements and $\mathfrak{sl}_2$ representations*, with A. Varchenko, Geometriae Dedicata **101** (2003), 217–234; MR2017904.
21. *Torsion in Milnor fiber homology*, with G. Denham and A. Suciu, Algebraic & Geometric Topology **3** (2003), 511–535; MR1997327.
22. *Gauss-Manin connections for arrangements, III. Formal connections*, with P. Orlik, Transactions of the American Mathematical Society **357** (2005) 3031–3050.

Preprints

1. *Gauss-Manin connections for arrangements, IV. Nonresonant eigenvalues*, with P. Orlik, MSRI Preprint #2005–007, 24 pages, submitted for publication; `math.AG/0502111`.
2. *Boundary manifolds of projective hypersurfaces*, with A. Suciu, MSRI Preprint #2005–006, 24 pages, submitted for publication; `math.AT/0502506`.

Work in progress

1. *Boundary manifolds of line arrangements*, with A. Suciu.
2. *Resonance and critical points*, with G. Denham, M. Falk, and A. Varchenko.
3. *Topological complexity of arrangements and configuration spaces*, with G. Pruidze.
4. *On injective homomorphisms for orbit pure braid groups*, with F. Cohen and S. Prassidis.
5. *Stratified Morse theory in arrangements*, with P. Orlik.

Grant Activity

Co-PI, *LSU VIGRE Proposal*, National Science Foundation, $3151921, 2005–2010, pending.

PI, *Topological Aspects of Arrangements*, National Security Agency, $42924, 2005–2007.

PI, *Boundary Manifolds of Arrangements*, LSU Council on Research Faculty Research Grant, $9052, 2004–2005.

PI, *Arrangements and Local Systems*, National Security Agency, $25994, 2002–2004.

PI, *NSF/CBMS Regional Research Conference—Arrangements & Mathematical Physics—January 2002*, National Science Foundation, $27364, 2001–2002.

PI, *Arrangements of Hyperplanes*, National Security Agency, $25952, 2000–2002.

PI, *Topology of Arrangements*, LEQSF Research Competitiveness Subprogram, $24075, 1999–2002.

Co-PI, *Conference on Hyperplane Arrangements*, National Science Foundation, $5000, 1999–2000.

PI, *Arrangements & Hypergeometric Integrals*, LSU Council on Research Summer Stipend Program, $5000, 1999.

PI, *Travel Grant*, NSF/EPSCoR Travel Grant for Emerging Faculty, $1000, 1998.

PI, *Topology of Arrangements*, LEQSF Research Competitiveness Subprogram, $46350, 1996–1999.

PI, *Topology of Arrangements*, LSU Council on Research Summer Stipend Program, $4000, 1996.

Professional Activities

Organizer	*Arrangements & Mathematical Physics*, NSF/CBMS Regional Research Conference Louisiana State University, Baton Rouge, LA, January 2002
Co-Organizer	*Topology of Arrangements and Applications*, Workshop at the Special Semester on Hyperplane Arrangements and Applications, Mathematical Sciences Research Institute, Berkeley, CA, October 2004
	Arrangements in Topology and Algebraic Geometry, Special Session AMS Sectional Meeting, Louisiana State University, Baton Rouge, LA, March 2003
	Arrangements of Hyperplanes, Special Session AMS Sectional Meeting, University of Wisconsin, Madison, WI, October 2002
	Braid Groups and Configuration Spaces, Special Session AMS National Meeting, New Orleans, LA, January 2001
	Arrangements in Boston: A Conference on Hyperplane Arrangements Northeastern University, Boston, MA, June 1999
Guest Editor	*Topology and its Applications*, Special Issue, Volume **118**, Issues 1–2 (2002)
Referee	*Advanced Studies in Pure Mathematics* *Advances in Mathematics* *Algebraic & Geometric Topology* *American Mathematical Monthly* *Compositio Mathematica* *International Journal of Mathematics and Mathematical Sciences* *Pacific Journal of Mathematics* *Proceedings of the American Mathematical Society* *Topology and its Applications* *Transactions of the American Mathematical Society* *Tokyo Journal of Mathematics*
Reviewer	*Mathematical Reviews* National Security Agency, Mathematical Sciences Program Natural Sciences and Engineering Research Council of Canada
Member	American Mathematical Society

Selected University Service

Mentoring

Thesis advisor and Graduate Student Advisory Committee Chair for C. Egedy, Department of Mathematics, 2005–present.

Thesis advisor and General Exam Committee Chair for G. Pruidze, Department of Mathematics, 2003–present.

Minor Professor, Graduate Student Advisory Committee for L. Moscovich, Department of Computer Science, 1999-present. Mr. Moscovich defended his Ph.D. thesis in Fall 2004.

Communicating Mathematics Mentor for M. Cohen, Department of Mathematics, 2005.

Member, General Exam Committee and Doctoral Exam Committee for M. Holcomb, Department of Mathematics, 2001–2003.

Communicating Mathematics Mentor for G. Pruidze, Department of Mathematics, 2003.

Member, General Exam Committee for R. Cazucu, Department of Mathematics, 2002.

Member, General Exam Committee for G. Cazucu, Department of Mathematics, 2001.

Member, Doctoral Exam Committee for A. Cruz, Department of Mathematics, 2000.

Communicating Mathematics Mentor for R. Dutsch, Department of Mathematics, 2000.

Dean's Representative, General Exam Committee and Doctoral Exam Committee for R. Arts, Department of Industrial and Manufacturing Systems Engineering, 1999–2000.

Member, Undergraduate Honors Thesis Committee for D. Robertson, Department of Mathematics, 1998.

Committee work

Member, Mathematics Department VIGRE Committee, 2002–present.

Member, Mathematics Department Graduate Recruiting Committee, 2002–2004.

Member, Mathematics Department 1021 College Algebra Redesign Committee, 2004.

Member, Mathematics Department Executive Committee, 2002–2004, 2001, 1998.

Member, Institutional Screening Committee, LEQSF Enhancement Proposals, 2001.

Member, Mathematics Department Hiring Committee, 2000–2003.

Member, Mathematics Department Ad Hoc Committee on Improvement, 2000–2001.

Member, Mathematics Department Program Review Self-Study Committee, 1998–1999.

Member, Chancellor's Distinguished Lectureship Series Selection Panel, 1998.

Member, Mathematics Department Internal Review Committee, 1997–1998.

Other

Judge, Capitol District Science Fair, February 2003.

Faculty advisor, Racquetball Club @ LSU, 2001–present.

Faculty advisor, Pi Mu Epsilon, undergraduate mathematics honor society, 1996–present.
(currently dormant)

Fall transfer advising, 1997.

Papers Presented at Professional Meetings

1. *Gauss-Manin connections for arrangements*, Arrangements of Hyperplanes - Algebra, Combinatorics, Geometry, and Topology, Centro Stefano Franscini, Ascona, Switzerland, May 2005.
2. *Local systems on complements of arrangements* and *Boundary manifolds of arrangements*, Introductory Workshop on Hyperplane Arrangements and Applications, Mathematical Sciences Research Institute, Berkeley, CA, August 2004.
3. *The fundamental group and cohomology ring of the boundary of a line arrangement*, Special Session on Geometry and Combinatorics, American Mathematical Society National Meeting, Phoenix, AZ, January 2004.
4. *Cohomology of the boundary of a line arrangement*, Special Session on Group Cohomology in Algebra and Geometry, American Mathematical Society Fall Southeastern Section Meeting, University of North Carolina, Chapel Hill, NC, October 2003.
5. *Discriminantal arrangements, critical points, and local systems*, Special Session on Arrangements of Hyperplanes, American Mathematical Society Fall Central Sectional Meeting, University of Wisconsin, Madison, WI, October 2002.
6. *Gauss-Manin connections for arrangements*, Braids in Cortona, Cortona, Italy, June 2002.
7. *Triples of arrangements and local systems*; *Characteristic varieties and links at infinity*; *Does resonance propogate?* Mini-Workshop: Cohomology Jumping Loci, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, March 2002.
8. *Triples of arrangements and local systems*, CombinaTexas Conference (poster session), Texas A&M University, College Station, TX, March 2001.
9. *On the cohomology of braid groups with symplectic coefficients*, Special Session on Braid Groups and Configuration Spaces, AMS National Meeting, New Orleans, LA, January 2001.
10. *Lie algebras associated to fiber-type arrangements*, Workshop on Arrangements, Forschungsinstitut für Mathematik, ETH Zürich, Zürich, Switzerland, December 2000.
11. *Triples of arrangements and local systems*, Special Session on Arrangements of Hyperplanes, AMS Eastern Section Meeting, Columbia University, New York, NY, November 2000.
12. *Braid groups, configuration spaces, and fiber-type arrangements*, Lehigh University Geometry and Topology Conference, Lehigh University, Bethlehem, PA, June 2000.
13. *Lie algebras associated to fiber-type arrangements*, CombinaTexas Conference (poster session), Texas A&M University, College Station, TX, April 2000.
14. *Cohomology of fiber-type arrangements and Orlik-Solomon algebras*, Workshop on Mathematics Related to Arrangements of Hyperplanes, Tokyo Metropolitan University, Tokyo, Japan, July 1998.
15. *Cohomology of fiber-type arrangements*, Fundamental Groups in Geometry (poster session), Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, May 1998.
16. *Monodromy of fiber-type arrangements*, Minisymposium on Arrangements, Mathematics Ph.D. Centennial Conference, University of Wisconsin, Madison, WI, May 1997.
17. *Braid monodromy and fundamental groups of arrangements*, Special Session on Hyperplane Arrangements, AMS Central Section Meeting, University of Iowa, Iowa City, IA, March 1996.
18. *Homology of iterated semidirect products of free groups*, Colleque sur les Arrangements d'Hyperplans, Centre International de Rencontres Mathématiques, Marseille, France, July 1994.
19. *Milnor fibrations of arrangements*, Workshop on Hyperplane Arrangements, University of Wisconsin, Madison, WI, October 1992.
20. *Local coefficient cohomology of complex hyperplane arrangements*, Workshop on Hyperplane Arrangements, University of Wisconsin, Madison, WI, October 1991.

Future Professional Meetings

1. Hyperplane Arrangements: Cohomology and Rational Homotopy, Banff International Research Station for Mathematical Innovation and Discovery, Banff, Alberta, Canada, June 2005.
2. Groups, Homotopy, and Configuration Spaces: Conference in Honor of Fred Cohen, University of Tokyo, Tokyo, Japan, July 2005.
3. Hyperplane Arrangements Workshop, Pacific Institute for the Mathematical Sciences, University of British Columbia, Vancouver, BC, Canada, August 2005.

Invited Lectures

1. *Virtual Topology Seminar*, LSU/University of Iowa, February 2005.
2. *Combinatorics Seminar*, Massachusetts Institute of Technology, Cambridge, MA, January 2005.
3. *Graduate Alumni Conference*, Northeastern University, Boston, MA, January 2005.
4. *Working Seminar on Maximum Likelihood*, University of California, Berkeley, CA, October 2004.
5. *Learning Seminar*, Special Semester on Hyperplane Arrangements and Applications, Mathematical Sciences Research Institute, Berkeley, CA, Fall 2004.
6. *Metroplex AGANT Seminar*, University of North Texas, Denton, TX, April 2004.
7. *Colloquium*, Mississippi State University, Mississippi State, MS, February 2003.
8. *Colloquium*, Michigan Technological University, Houghton, MI, May 2002.
9. *Topology Seminar*, University of Wisconsin, Madison, WI, May 2002.
10. *Colloquium*, Northern Arizona University, Flagstaff, AZ, April 2002.
11. *Topology Seminar*, University of Rochester, Rochester, NY, May 2001.
12. *Topology Seminar*, University of Wisconsin, Madison, WI, February 2001.
13. *Colloquium*, Louisiana State University, Baton Rouge, LA, October 2000.
14. *Geometry-Algebra-Singularities-Combinatorics Seminar*, Northeastern Univ., Boston, MA, June 1999.
15. *Topology Seminar*, University of Illinois, Chicago, IL, April 1999.
16. *Topology Seminar*, University of Wisconsin, Madison, WI, February 1999 and April 1999.
17. *Colloquium*, University of South Alabama, Mobile, AL, May 1996.
18. *Colloquium*, Louisiana State University, Baton Rouge, LA, March 1995.
19. *Geometry-Algebra-Singularities Seminar*, Northeastern University, Boston, MA, June 1994.
20. *Topology Seminar*, University of Oregon, Eugene, OR, March 1993.
21. *Colloquium*, California Polytechnic State University, San Luis Obispo, CA, February 1993.
22. *Topology Seminar*, University of Wisconsin, Madison, WI, October 1992.
23. *Valley Geometry Seminar*, University of Massachusetts, Amherst, MA, March 1992.

Recognition

General Member, Mathematical Sciences Research Institute, 2004.
Nominee, LSU Distinguished Faculty Award, 2003.
Recipient, LSU Alumni Association Faculty Excellence Award, 2002.
Recipient, Phi Kappa Phi/LSU Alumni Association Non-Tenured Faculty Award, 2001.
Honorary Fellow, Department of Mathematics, University of Wisconsin-Madison, 1999.
Research Fellowship, LSU College of Arts & Sciences, 1999.
Nominee, Phi Kappa Phi/LSU Alumni Association Non-Tenured Faculty Award, 1998, 1999.
Nominee, Alpha Lambda Delta Outstanding Freshman Teacher Award, 1997.

Collaborators, Advisors, and Advisees

Collaborators	Alejandro Adem (UBC/PIMS)	Frederick R. Cohen (Rochester)
	Graham Denham (Western Ontario)	Alexandru Dimca (Nice)
	Mark Goresky (IAS)	Lizhen Ji (Michigan)
	Peter Orlik (Wisconsin)	Alexander I. Suciu (Northeastern)
	Alexander N. Varchenko (North Carolina)	Miguel Xicoténcatl (CINVESTAV)
Advisor	Mark Goresky (IAS)	
Advisees	Charles Egedy (current student)	Goderdzi Pruidze (current student)