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EDUCATION:

- 1996 **Courant Institute of Mathematical Sciences**
Ph.D., May 1996.
Thesis: *Noncompact Manifolds with Lower Ricci Curvature Bounds and Minimal Volume Growth*
Adviser: Professor Jeff Cheeger
- 1991 **College of Arts and Science, N.Y.U.**
B.A., *magna cum laude*
Majors: Mathematics and English
Minor: Physics
- 1987 **Hunter College High School**

EXPERIENCE:

- 2003-present **Graduate Center, City University of New York**
Supervising Doctoral Student: Michael Munn, 2004-present
Special Topics Course: Metric Geometry, Fall 2005
- 2005-present **Lehman College, City University of New York, Associate Professor**
Precalculus, Fall 2005,
Intermediate Calculus I, Spring 2005, day
- 1999-present **Lehman College, City University of New York, Assistant Professor**
Unpaid Maternity Leave for Kendall, Sept 2003-Dec 2004
Intermediate Calculus II, Spring 2003, evening
Noneuclidean Geometries, Masters students, Fall 2002, evening
Intermediate Calculus I, Fall 2002, evening
Geometry, for Math Majors, Fall 2002, evening
Unpaid Maternity Leave for Penelope, Jan 2001- May 2002
Elements of Linear Algebra, (Kolman) Fall 2000, evening
Calculus I Maple Labs, (Larson), Fall 2000, evening
Calculus I, (Stewart), Spring 2000, evening
Calculus I Maple Labs, (Stewart), Spring 2000, evening
Unpaid Maternity Leave for Tabitha, Sept 1999-Dec 1999
- 1997-1999 **Johns Hopkins University, Assistant Professor**
Analysis I-II
Introduction to Differential Geometry
Partial Differential Equations with Applications
Riemannian Geometry I-II for Graduate Students
- 1996-1997 **Harvard University, Lecturer**
Real Analysis for undergraduates,
Multivariable Calculus (with Mathematica).

AWARDS:

- 2001-2004 **NSF Research Grant: DMS-0102279**
The Topology of Open Manifolds with Nonnegative Ricci Curvature
- 2004-2005 **PSC CUNY 35 Research Grant**
Covering Spectra of Compact Length Spaces
- 2003-2004 **PSC CUNY 34 Research Grant**
Almost Isotropy and the Friedman Model
- 2002-2003 **PSC CUNY 33 Research Grant**
Manifolds with Lower bounds on their Ricci curvature and their topology
- 1999-2000 **PSC CUNY 31 Research Grant**
The Topology of Manifolds with Nonnegative Ricci Curvature
National Science Foundation AWM Travel Grant
for travel to Odense, Denmark.
- 1997-1998 **National Science Foundation ICM98 Travel Grant**
for travel to Berlin, Germany.
- 1991 - 1996 **National Science Foundation Fellowship**
Multi-year Fellowship, G.S.A.S., N.Y.U.
- 1987-1991 **Alumni Anniversary Prize for Academic Excellence, 1991**
Sidney Goldwater Roth Memorial Prize for Mathematics, 1991
E. H. Hornstein Prize for English Literature, 1991
Alumni Scholarship, towards NYU tuition 1987-1991

SERVICE:

- 2003-2004 **CUNY Geometric Analysis 2005: March 19-20, 2005**
coorganized with J. Dodziuk and R. Sibner,
10 invited speakers, 39 registered participants
See <http://comet.lehman.cuny.edu/sormani/conf/2005/geom05.html>
- 2002-2004 **Differential Geometry Workshop: April 30, 2005, 2005**
A three speaker satellite to Cheeger's Birthday Conference
- 2002-2004 **Geometric Analysis and its Applications:**
a Conference in Honor of Edgar Feldman Feb 7-8, 2004
coorganized Feldman's Retirement Conference with J. Dodziuk and I.Chavel,
6 plenary speakers, 11 contributed talks, 60 registered participants
See <http://comet.lehman.cuny.edu/sormani/conf/Feldman/feldman.html>
- 2004-present **Educational Policy Committee**
elected member of the Lehman College Math and Comp Sci Department EPC
redesigned the courses for the masters program in mathematics
implemented uniform detailed syllabi for a math courses up through Calc II.

- 2002-present **Lehman College Calculus Committee Chair**
 we surveyed the calculus records of troubled math majors,
 we revised the syllabi for PreCalculus through Intermediate Calculus
 we designed trigonometry and precalculus review sessions
 see <http://comet.lehman.cuny.edu/calculus>
- 2003- 2005 **Presentations and Notes on Perelman's Work**
 gave undergraduate talks at Williams, Wellesley and Lehman Colleges,
 posted the transparencies used in these talks for general use,
 posted notes on Perelman's talks on Lott and Kleiner's website
- 2002-2004 **Lehman College Math Circle**
 cofounded a math club for high school students with J. Halabi,
 organized 4 meetings and presented "Dimensions" and "Winding Numbers and
 the Inversion of the Sphere" in Spring, 2004
 organized 4 meetings and presented "Constrained Optimization" in Fall, 2003
 organized 5 meetings and presented "Hyperbolic Space" in Spring, 2003
 organized 4 meetings, presented "Vectors", "Lines and Circles" in Fall, 2002
 see <http://comet.lehman.cuny.edu/mathcircle>
- 2003-2004 **2004 Spring Eastern Sectional Meeting of the AMS**
 coorganized a **Special Session** with X. Rong and G. Wei,
 entitled "Convergence of Riemannian Manifolds".
- 2003-2004 **Association of Women in Mathematics**
 coorganized the January Joint Meeting panel on
 "Supporting the Diverse Personal Lives of Mathematicians"
 moderating the webforum on the same topic
- 2002-2003 **Visit from a Lehman College Alumna**
 invited Joyce Macabea, who is pursuing a PhD in math at B.U.,
 to speak to Lehman undergraduates in the afternoon and evening
- 2002-2003 **Lehman College Open House**
 represented the math department at the November Open House
- 2002-2003 **Association of Women in Mathematics Mentor**
 mentored 2 young women at the January Workshop in Baltimore
- 2001-2005 **CUNY Differential Geometry and Analysis Seminar**
 coorganized the seminar with 8 speakers in the Fall 2005 semester.
 organized the seminar with 11 meetings in the Spring 2003 semester.
 coorganized the seminar with 11 meetings in the Fall 2002 semester.
 organized the seminar with 15 meetings in the Spring 2002 semester.
 organized the seminar with 12 meetings in the Fall 2001 semester.
 organized the seminar with 11 meetings in the Spring 2001 semester.

- 2001-2002 **2002 Spring Eastern Sectional Meeting of the AMS**
coorganizing a **Special Session** with R. Rotman and K. Tapp,
entitled “Curvature and Topology”.
- 2000-2001 **2001 Spring Eastern Sectional Meeting of the AMS**
coorganized a **Special Session** with Megan Kerr of Wellesley
entitled “Ricci Curvature and Related Topics”.
- 1999-2000 **2000 Fall Eastern Sectional Meeting of the AMS**
coorganized a **Special Session** with Xiaochun Rong of Rutgers
entitled “Riemannian Manifolds and their Limit Spaces”.
- 1999-2000 **Lehman College Math and Computer Science Club**
coadvised the club and organized/attended weekly meetings,
designed the webpage at <http://comet.lehman.cuny.edu/sormani/club.html>
presented “Induction and the Broken Fire Escape”.
presented “Strange Shapes”.
- 1999-2000 **Association of Women in Mathematics**
wrote “A report on How to Increase the Number of Tenured
Women in Mathematics” for the AWM newsletter.
moderated the AWM Web Forums,
- 1999-2000 **Calculus Committee Member at Lehman College**
wrote 11 interactive Maple projects for Calculus I Labs
designed a calculus webpage at <http://comet.lehman.cuny.edu/calculus>
- 1997-1999 **Johns Hopkins University**
Cofounded and coadvised the Math Club.
Participated in the Undergraduate Curriculum Committee.
Was a member of four Oral Qualifying Exam/GRO committees.
- 1992-1995 **Courant Institute of Mathematical Sciences**
Founded and organized the **Introductory Lecture Series**
to introduce various fields of mathematics to new graduate students.

INVITED TALKS: (past 5 years only)

- 2005 **Differential Geometry Seminar,**
Harvard University
“The Covering Spectrum and Convergence of Manifolds”
- 2005 **Topology/Geometry Seminar,**
Rutgers University
“Subsets of the Length Spectrum and Convergence”
- 2005 **Geometry and Topology Seminar,**
Penn State University
“Gromov-Hausdorff Stability of Schur’s Lemma”
- 2004 **Dartmouth College, Colloquium,**
“Inhomogeneity and the Curvature of the Spacelike Cosmos”
- 2004 **U. Penn Analysis Seminar,**
“The Covering Spectrum”

- 2004 **Rutgers University at Newark, Colloquium**
"The Gromov-Hausdorff Stability of the Friedman Model"
- 2004 **Dartmouth College, Differential Geometry Seminar,**
"The Length and Covering Spectra"
- 2004 **Spectral Geometry Workshop,**
Centre de recherches mathématiques , Montreal
"The Covering Spectrum, the Length Spectrum and Convergence"
- 2003 **Lehigh University, Conference on Geometry and Topology**
"The Stability of Isotropy and the Friedmann Model "
- 2003 **University of Maryland, College Park, Geometry-Topology Seminar**
"Exponential Length Spaces "
- 2003 **University of Pennsylvania, Differential Geometry and Analysis Seminar**
"Almost Isotropy, Schur's Lemma and Cosmology"
- 2003 **Spring Eastern Sectional Meeting of the AMS**
Nonlinear Partial Differential Equations in Differential Geometry
"Almost Rigidity and Stability"
- 2003 **Joint Mathematics Meetings, Baltimore, January**
Recent Advances in Riemannian and Lorentzian Geometry,
"The Stability of the Friedmann Model"
- 2002 **Fall Eastern Sectional Meeting of the AMS**
Developments and Applications in Differential Geometry
"The Gromov-Hausdorff Stability of the Spacelike Friedmann Model"
- 2002 **Stanford University and AIM, General Relativity Workshop**
"Using Gromov-Hausdorff Convergence to understand the Spacelike Cosmos"
- 2002 **Columbia University, Geometry and Analysis Seminar**
"Limits of covers of balls with Ricci curvature bounded below"
- 2002 **Brown University, Geometry Seminar**
"Gromov-Hausdorff Limits of Manifolds with Lower Ricci Curvature Bounds"
- 2002 **Johns Hopkins University, Analysis Seminar**
"Universal Covers Exists on Limits of Manifolds with Lower Ricci Curvature Bounds "
- 2001 **State University of New York, Stony Brook, Colloquium**
"Hausdorff Convergence and Universal Covers"
- 2001 **Lehigh University, Conference on Geometry and Topology**
"Limits and Covers of Compact Spaces with Ricci Curvature Bounds"
- 2000 **Dartmouth College, Colloquium**
"Hausdorff Convergence and Universal Covers"
- 2000 **AMS/Scand 2000, Denmark**
Special Session on Differential Geometry,
"Ricci Curvature and the Existence of Souls"

- 2000 **City University of New York, Graduate Center, Topology Seminar**
“Fundamental Groups and Ricci Curvature”.
- 2000 **Joint AMS/MAA January Meeting**
Special Session on Geometric Analysis,
“Nonnegative Ricci Curvature, Small Linear Diameter
Growth and Finite Generation of Fundamental Groups”
- 2000 **Association for Women in Mathematics January Workshop,**
General Mathematical Audience
“Milnor’s Conjecture on Fundamental Groups”
- 1999 **Indiana University Purdue University at Indianapolis, Colloquium**
“Nonnegative Ricci Curvature and the Fundamental
Group (an overview)”
- 1998 **University of Maryland at College Park, Differential Geometry Seminar**
“Nonnegative Ricci Curvature, Linear Diameter Growth
and the Fundamental Group”
- 1998 **Harvard University, Differential Geometry Seminar**
“Nonnegative Ricci Curvature, Linear Diameter Growth
and the Fundamental Group”
- 1998 **Aarhus Geometry/Topology Conference, Denmark, Session on Differential Geometry**
“The Fundamental Group and a Tangent Cone of a
Manifold with Nonnegative Ricci Curvature”
- 1998 **Special Session on Recent Developments on the Laplace Operator,**
Joint AMS MAA January Meeting
“Harmonic Functions on Manifolds with Nonnegative Ricci
Curvature and Linear Volume Growth”

PAPERS: **The Covering Spectrum of a Noncompact Length Space.**
written with Guofang Wei,
Journal of Differential Geometry 67 (2004) 35-77.

Friedmann Cosmology and Almost Isotropy.
Geometric and Functional Analysis, Vol. 14 (2004) 853-912.

Universal Covers for Hausdorff Limits of Noncompact Spaces.
written with Guofang Wei, 34 pages
Transactions of the AMS 356 (2004), no. 3 pp. 1233-1270

Hausdorff Convergence and Universal Covers.
written with Guofang Wei
Transactions of the American Mathematical Society 353 (2001), 3585-3602.

The Codimension One Homology of a Complete Manifold with Nonnegative Ricci Curvature

written with Zhongmin Shen

American Journal of Mathematics 123 (2001) , 515-524.

On Loops Representing Elements of the Fundamental Group of a Complete Manifold with Nonnegative Ricci Curvature

Indiana Univ. Math. Journal 50 (2001), no. 4, 1867–1883.

Nonnegative Ricci Curvature, Small Linear Diameter Growth and Finite Generation of Fundamental Groups.

Journal of Differential Geometry 54 (2000) 547-559.

Harmonic Functions on Manifolds with Nonnegative Ricci Curvature and Linear Volume Growth.

Pacific Journal of Mathematics, Vol 192, No 1, (2000) 183-189.

The Almost Rigidity of Manifolds with Lower Bounds on Ricci Curvature and Minimal Volume Growth.

Communications in Analysis and Geometry Vol 8 No. 1 (2000) 159-212.

Busemann Functions on Manifolds with Lower Bounds on Ricci Curvature and Minimal Volume Growth.

The Journal of Differential Geometry, Vol 48, (1998) 557-585.