

CURRICULUM VITAE

JON WOLFSON

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EDUCATION:

Ph.D. Mathematics, 1982	University of California, Berkeley
Thesis Advisor:	S. S. Chern
M.Sc. Mathematics, 1977	University of Toronto, Toronto, Canada
B.A. Philosophy, 1975	University of Toronto, Toronto, Canada

EMPLOYMENT:

Rice University, Houston, Texas	
G.C. Evans Instructor of Mathematics	1982-1985
Tulane University, New Orleans, Louisiana	
Assistant Professor	1985-1988
Associate Professor	1988-1989
Michigan State University, East Lansing, Michigan	
Associate Professor	1989-1994
Professor	1994-present.

VISITING POSITIONS:

Mathematical Sciences Research Institute, Berkeley, California	
Member	May-Jun. 1983, Jun.-Aug. 1984 Mar.-May 1989
Max-Planck Institute for Mathematics, Bonn, Germany	
Member	1985-1986
Isaac Newton Institute for Mathematical Sciences, Cambridge, England	
Member	July 1994
Department of Mathematics, Stanford University, Stanford, California	
Visiting Professor	Sept.-Dec. 1995
Institute des Hautes Etudes Scientifiques, Bures-sur-Yvette, France	
Visiting Member	May-July 1996
American Institute of Mathematics, Palo Alto, California	
Research Fellow	Jan.-April 1998
Center for Theoretical Science, National Tsing Hua University, Hsinchu, Taiwan	
Visiting Professor	Jun.-Jul. 2000, Jul. 2002
Department of Mathematics, Stanford University, Stanford, California	
Visiting Professor	Sept. 2003-Aug. 2004.

HONORS :

Alexander von Humboldt Foundation research fellowship (1985-1986)
Barrett Lecturer, University of Tennessee, Knoxville, Tn., May 2000.
Frame Prize for undergraduate teaching, Michigan State University, 2001.
Invited plenary address, 1020th AMS meeting, University of Cincinnati,
Cincinnati, Oh., October 2006.

RESEARCH GRANTS:

NSF grant DMS 84-05168,	1984-85
NSF grant DMS 87-01404,	1987-89 (Principal investigator)
NSF grant DMS 89-01230,	1989-91 (Principal investigator)
NSF grant DMS 93-05067,	1993-95 (Principal investigator)
NSF grant DMS 95-04898,	1995-99 (Principal investigator)
NSF grant DMS 98-02487,	1998- 2003 (Principal investigator)
NSF grant DMS 01-04007,	2001-04 (Principal investigator)
NSF grant DMS 03-04587,	2003-07 (Principal investigator)
NSF grant DMS 06-04759,	2006-10 (Principal investigator)

OTHER GRANTS:

Great Lakes Geometry Workshop DMS 9985994	1999 (co-Principal investigator)
RTG Research Training in Geometry and Topology DMS 0353717	2004-09 (co-Principal investigator)
RTG Research Training in Geometry and Topology DMS 0739208	2008-14 (co-Principal investigator)

RECENT SERVICE:

Co-organizer (with R. Fintushel), Second Annual Great Lakes Geometry Conference, East Lansing Mi, March 2000.

Co-organizer (with M. Gross, K. Liu, R. Schoen, E. Zaslow), Workshop “The Geometry of Lagrangian Submanifolds”, IPAM, Los Angeles, Ca, April 2003.

EDITORIAL SERVICE:

Editor, Proceedings of the American Math. Society, Feb. 2003 - Feb. 2006.

Coordinating Editor, Proceedings of the American Math. Society, Feb. 2006 - Feb. 2010.

Editorial Board, Geometriae Dedicata, 2006- present.

POST-DOCTORAL FELLOWS:

Meeyong Kim, 1998-1999. Deceased

Spiros Karigiannis, 2005-2006. Currently, Univ. of Waterloo, Waterloo, Canada.

Mikhail Alyurov, 2007-2009.

Corbett Redden, 2009-2011. Currently, Long Island University, NY.

PHD STUDENTS:

Joerg Enders, PhD 2008. Thesis Title: *Generalizations of the reduced distance in the Ricci Flow*, currently at University of Potsdam, Potsdam, Germany.

Andrew Cooper, PhD 2011. Thesis Title: *Mean curvature flow in higher codimension*, currently at North Carolina State University, Raleigh, NC.

Chaitanya Senapathi, PhD 2013. Thesis Title: *Theorems of Barth-Lefschetz type and Morse theory on the space of paths in homogeneous spaces*, currently at Tata Institute for Fundamental Research, Mumbai, India.

Dan Smith, PhD 2013. Thesis Title: *Stability of the almost Hermitian curvature flow*, currently at Furman University, Greenville, SC.

SELECTED INVITED ADDRESSES :

- 1995 Andreas Floer Memorial Lecture, University of California, Berkeley, CA, October 1995.
- Eighth Lehigh University Geometry and Topology Conference, Lehigh University, Bethlehem, PA, June, 1997.
- Seventh Southern California Geometric Analysis Seminar, University of California, Irvine, April, 1998.
- Workshop on Symplectic Geometry, Mathematics Research Center, University of Warwick, Coventry, UK, July, 1998.
- Geometric and Analytic Problems related to Curvature, CIRM, Luminy, France, Sept. 1998.
- Texas Geometry and Topology Conference, University of Texas, Austin, Tx., Oct. 1998.
- Lecturer (five lectures): School on Differential Geometry, Abdus Salam International Center for Theoretical Physics, Trieste, Italy, April 1999.
- Partial Differential Equations, Mathematisches Forschungsinstitut Oberwolfach, Germany, June 1999.
- Barrett Lecturer, University of Tennessee, Knoxville, Tn., May 2000.
- Lecturer (three lectures), International Workshop in Geometry, National Center for Theoretical Science, Tsing Hua University, Hsinchu, Taiwan, June-July 2000.
- Mini-Workshop on Geometric Analysis, The Chinese University of Hong Kong, Hong Kong, June 2001.
- Global Theory of Minimal Surfaces, 2001 Clay Mathematics Institute Summer School, MSRI, Berkeley, Ca, July 2001.
- (Two lectures) Mathematics Department, Columbia University, New York, Dec. 2001.
- (Two lectures) National Center for Theoretical Science, Tsing Hua University, Hsinchu, Taiwan, July 2002.
- Colloquium, University of California, San Diego, October 2003.
- Colloquium, University of British Columbia, Vancouver, November 2003.
- Pacific Northwest Geometry Seminar, Stanford University, Stanford, Ca., Feb. 2004
- Northern California Symplectic Geometry Seminar, University of California, Berkeley, Ca, March, 2004.
- Fields Colloquium in Geometric Analysis, Fields Institute, Toronto, Canada, April 2004.
- Workshop on Geometry and Nonlinear Analysis, National Taiwan University, Taipei, Taiwan, Dec. 2005.
- Colloquium, University of Oregon, Eugene, May 2006.
- Invited plenary address, 1020th AMS meeting, University of Cincinnati, Cincinnati, Oh., October 2006.
- 2007 International Conference on Geometric Analysis, Taida Institute for Mathematical Sciences, National Taiwan University, Taipei, Taiwan, June 2007.
- Variational Problems in Differential Geometry, University of Leeds, Leeds, UK, March 2009.
- Colloquium, University of Minnesota, Minneapolis, Nov 2009.
- Colloquium, Polytechnic Institute of New York University, New York, Apr 2010.
- Special Session on Differential Geometry, 1064th AMS meeting, Notre Dame University, Notre Dame, In., Nov. 2010.
- Joint UCI-UCSD Geometry Seminar, University of California, San Diego, May 2012.

PUBLICATIONS: PAPERS

1. A Simple Proof of Frobenius Theorem (with S. S. Chern), in *Manifolds and Lie Groups, Papers in Honor of Yozo Matsushima*, edited by J. Hano, et al., Birkhauser (1981), 67-69.
2. Minimal Surfaces in Complex Manifolds, Thesis, University of California, Berkeley, 1982.
3. Minimal Surfaces by Moving Frames (with S. S. Chern), *Amer. J. Math.* **105** (1983), 59-83.
4. On Minimal Surfaces in a Kähler Manifold of Constant Holomorphic Sectional Curvature, *Trans. AMS* **290** (1985), 627-646.
5. Harmonic Maps of S^2 into a Complex Grassmann Manifold (with S.S. Chern), *Proc. National Academy of Sciences (USA)*, **82** (1985), 2217-2219.
6. Harmonic Maps of the Two-sphere into a Complex Grassmann Manifold II (with S.S. Chern), *Annals of Math.* **125** (1987), 301-335.
7. Harmonic Maps of the Two-sphere into the Complex Hyperquadric, *J. Diff. Geom.* **24** (1986), 141-152.
8. Harmonic Sequences and Harmonic Maps of Surfaces into Complex Grassmann Manifolds, *J. Diff. Geom.* **27** (1988), 161-178.
9. Harmonic Sequences, Harmonic Maps and Algebraic Geometry, in *Harmonic Mappings, Twistors and σ -Models, 9-13 June 1986, CIRM, Luminy, France*, edited by P. Gauduchon, World Scientific (1988).
10. Gromov's Compactness of Pseudo-Holomorphic Curves and Symplectic Geometry, *J. Diff. Geom.* **28** (1988), 383-405.
11. Minimal Surfaces in Kähler Surfaces and Ricci Curvature, *J. Diff. Geom.* **29** (1989), 281-294.
12. The Second Variation of Area of Minimal Surfaces in Four-Manifolds (with M. Micalef) *Math. Ann.* **295** (1993) 245-267.
13. Pseudo-Holomorphic Maps and Bubble Trees (with T. Parker), *J. Geom. Analysis* **3** (1993), 63-98.
14. Symplectic Normal Connect Sum (with J. D. McCarthy), *Topology* **33** (1994), 729-764.
15. Symplectic Gluing along Hypersurfaces and Resolution of Isolated Orbifold Singularities (with J. D. McCarthy), *Invent. Math.* **119** (1995), 129-154.
16. Double Points and the Proper Transform in Symplectic Geometry (with J.D. McCarthy), *Diff. Geom. and its Applications* **6** (1996), 101-107.
17. Minimal Lagrangian Diffeomorphisms and the Monge-Ampère equation, *J. Diff. Geom.* **46** (1997) 335-373.
18. Symplectic Resolution of Isolated Algebraic Singularities (with J. D. McCarthy) , *Geometry, Topology, and Dynamics*, edited by F. Lalonde, CRM Proceedings and Lecture Notes **15**, AMS (1998)
19. Theorems of Barth-Lefschetz type and Morse theory on the space of paths, (with R. Schoen) , *Math Z.* **229** (1998) 77-89.

20. Minimizing Volume among Lagrangian Submanifolds, (with R. Schoen), in *Differential Equations: La Pietra 1996* edited by M. Giaquinta, J. Shatah and S. Varadhan, Proc. Symposia in Pure Math., AMS **65** (1999) 181-199.
21. Minimizing Area among Lagrangian Surfaces: The Mapping Problem, (with R. Schoen), J. Diff. Geom. **58** (2001) 1-86.
22. Mean Curvature Flow and Lagrangian Embeddings, (with R. Schoen), preprint (2002).
23. The volume functional for lagrangian submanifolds (with R. Schoen), in *Lectures on partial differential equations*, edited by A. Chang, C.S. Lin and H.T. Yau, New Stud. Adv. Math., 2, International Press, 2003.
24. Theorems of Barth-Lefschetz type on Kähler manifolds of non-negative bisectional curvature (with M. Kim), Forum Math.**15** (2003), 261-273.
25. The Lefschetz theorem for CR submanifolds and the nonexistence of real analytic Levi flat submanifolds (with Lei Ni), Comm. Anal. and Geom. **11** (2003), 553-564.
26. Variational Problems in Lagrangian Geometry: \mathbb{Z}_2 -currents, in *Global Theory of Minimal Surfaces*, edited by David Hoffman, CMI/AMS 2005.
27. Two applications of prequantization in lagrangian topology, Pacific Journal of Math. **215** (2004), 393-398.
28. Lagrangian homology classes without regular minimizers, J Diff. Geom. **71** (2005), 307-313.
29. Area minimizers in a K3 surface and holomorphicity (with M. Micallef), GAFA. **16** (2006) 437-452.
30. The fundamental group of manifolds of positive isotropic curvature and surface groups (with A. Fraser), Duke Math. J. **133** (2006) 325-334.
31. Positive complex sectional curvature, Ricci flow and the differential sphere theorem (with Lei Ni), arXiv:math.DG/0706.0332.
32. Fill radius and the fundamental group (with Mohan Ramachandran), Journal of Topology and Analysis **2** (2010) 99-107.
33. Manifolds with k -positive Ricci curvature, in *Variational problems in Differential Geometry*, edited by R. Bielawski, et al., LMS Lecture Notes Series 394, Cambridge University Press 2012.
34. Three manifolds with constant vector curvature, (with Ben Schmidt), preprint, arXiv:math.DG/1110.4619.
35. Curvature Homogeneous Metrics on $SL(2, \mathbb{R})$, (with Ben Schmidt), preprint.
36. Eigenvalue gap theorems for a class of nonsymmetric elliptic operators on convex domains, preprint, arXiv:math.DG/1212.1669.

PUBLICATIONS: BOOKS

1. Conformal, Riemannian and Lagrangian Geometry, The 2000 Barrett Lectures, (with A. Chang and P. Yang and K. Grove), University Lecture Series, Vol 27, AMS, 2002.