

WILLIAM WYLIE  
CURRICULUM VITAE

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Dept. of Math  
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## EDUCATION

B.S. Providence College, Mathematics & Computer Science	2001
M.A. University of California, Santa Barbara, Mathematics	2003
Ph.D. University of California, Santa Barbara, Mathematics	2006

Thesis advisor: Guofang Wei

## EMPLOYMENT

Postdoc-General Member, MSRI	Fall 2006
VIGRE Assistant Professor, UCLA	Winter 2007-2008
Post-doctoral lecturer, UPenn	2008-Present

## RESEARCH INTERESTS

Riemannian geometry, geometric flows, global geometric analysis.

## PUBLICATIONS

### Preprints:

On the classification of warped product Einstein metrics. (with C. He & P.Petersen)  
*arXiv:1010.5488v1*

Warped product Einstein metrics over spaces with constant scalar curvature.  
(with C.He & P. Petersen) *arXiv:1012.3446v1*

The space of virtual solutions to the warped product Einstein equation. (with C. He & P. Petersen)  
In preparation.

### Published:

On the classification of gradient Ricci solitons. (with Peter Petersen)  
*Geom. & Top.*, 14, pp. 2277-2300, 2010.

Comparison Geometry for the Bakry-Emery Tensor. (with Guofang Wei)  
*J. of Diff. Geom.*, 83(2), pp. 377-406, 2009.

On gradient Ricci solitons with symmetry. (with Peter Petersen)  
*Proc. Amer. Math. Soc.*, 137, pp. 2085-2092, 2009.

Rigidity of gradient Ricci solitons. (with Peter Petersen)  
*Pacific J. of Math.*, 241(2), pp. 329-345, 2009.

Complete shrinking Ricci solitons have finite fundamental group.  
*Proc. Amer. Math. Soc.*, 136(5) pp. 1803-1806, 2008.

Comparison Geometry for smooth metric measure spaces. (with Guofang Wei)  
*Proc. of the 4th ICCM*. Hangzhou, China, Vol. II pp. 191-202, 2007.

Noncompact manifolds with nonnegative Ricci curvature.  
*J. Geom. Anal.* 16(3), pp. 535-550, 2006.

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## HONORS AND AWARDS

NSF Research Grant : DMS-0905527 <i>Geometry of smooth metric measure spaces and Ricci flow</i>	2009-2012
UCSB Graduate Council Departmental Mentorship Award Fellowship	2005-2006
UCSB Graduate Student Teaching Award	2005

## INVITED TALKS

CUNY Differential Geometry seminar	November 2010
SAGE: Symposia on Analysis of Geometric Evolution workshop, Austin, TX	September 2010
Lafayette Geometry and Topology seminar	March 2010
Princeton geometric analysis seminar	February 2010
Lehigh geometry seminar	December 2009
AMS Special session on Global Riemannian Geometry, Riverside, CA	November 2009
AMS Special session on Formation of Singularities in Geometric Flows, Waco, TX	October 2009
SUNY-Stony Brook, Geometry seminar	October 2009
CUNY Differential Geometry workshop	June 2009
SAGE, Austin, TX	May 2009
SUNY Buffalo, Geometry and Topology Seminar	October 2008
AMS Special Session on Nonlinear Elliptic eqns. and Geom. inequalities, Courant	March 2008
UC Riverside, Differential Geometry Seminar	February 2008
UC San Diego, Differential Geometry Seminar	November 2007
Workshop on Curvature and Global Shape, Münster, Germany	July 2007
UC Santa Barbara, Differential Geometry Seminar	May 2007
CSU Chico, Colloquium	April 2007
CSU Northridge, Graduate Seminar	March 2007
Mathematical Sciences Research Institute	October 2006
UC Riverside, Differential Geometry Seminar	May 2006
UCLA, Differential Geometry Seminar	February 2006
CSU Channel Islands, Mathematics and Computer Science graduate seminar	October 2005
AMS Special Session on Ricci Flow/Riemannian Geometry, UCSB	April 2005

## OTHER CONFERENCES AND WORKSHOPS

Interactions between Analysis and Geometry, Notre Dame	October 2010
Geometrie, Oberwolfach, Germany	June 2010
Lehigh Geometry and Topology conference	2009, 2010
Geometry Festival in memory of Detlef Gromoll, Stony Brook, NY	April 2009
Workshop on Global Riemannian Geometry, Cuernavaca, Mexico	May 2008
Southern California Geometric Analysis Seminar	2004 - 2007
Karsten Grove 60th Birthday Conference, College Park, MD	September 2006
CMI Summer School on Ricci Flow, 3-Manifolds, and Geometry, MSRI	Summer 2005
Triangulations of Point Sets: Applications, Structures, Algorithms, MSRI	July 2003

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**TEACHING EXPERIENCE**

**UPenn**

- Differential Geometry (upper division) Spring 2011
- Calculus I Fall 2010
- Calculus III Fall 2010
- Introduction to Ricci Flow Spring 2010
- Calculus II Spring 2010
- Introduction to Calculus Fall 2009
- Riemannian Geometry (graduate) Spring 2009
- Partial Differential Equations (upper division) Spring 2009
- Introduction to Calculus Fall 2008

**UCLA**

- Ordinary Differential Equations (upper division) Spring 2008
- Introduction to Ricci flow (graduate) Winter 2008
- Linear Algebra Fall 2007
- Linear Algebra (upper division) Spring 2007
- Calculus for Life Sciences Winter 2007

**UCSB**

- Vector Calculus Summer 2005
- Mathematics for Elementary Teaching II Winter 2005
- Calculus for the social and life sciences Fall 2004, Summer 2003
- Summer Enrichment and Transition Program. Summer 2003

**SERVICE**

- Scientific committee, Ricci Solitons Days in Pisa 2011. Apr. 2011
- Organizer, AMS Special Session on global geometric analysis. Los Angeles, CA. Oct. 2010
- Organizer, UPenn Geometry and Topology Reading seminar. 2008-2010
- Calculus I Course Coordinator, UPenn Fall 2010
- Transfer Credit Committee. UPenn 2010-2011
- Graduate Preliminary Exam Committee. UPenn 2009-2010
- Graduate Admissions Committee. UPenn 2008-2009
- Referee for *Proc. of AMS*, *Archiv der Math.*, *Quart. J. of Math* 2007-present
- Ann. of Global Anal. and Geom.*
- Graduate Committee Student Representative. UCSB 2004-2005