

Curriculum Vitae

Michael Greenblatt

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Citizenship: USA

Education

Princeton University, department of mathematics, Ph.D., 1998.

Stanford University, department of mathematics, M.S., 1994.

California Institute of Technology, with honors, major in mathematics, B.S., 1992.

Appointments

2008-: Assistant Professor (tenure-track), University of Illinois at Chicago.

2005-2008: Assistant Professor (tenure-track), SUNY at Buffalo.

2002-2005: Continued math research while outside academia for personal reasons (declined visiting assistant professor positions at Madison and Toronto).

2002: Visiting Assistant Professor, University of Wisconsin-Madison.

1998-2001: C.L.E. Moore Instructor, Massachusetts Institute of Technology.

Research Papers

16. *The asymptotic behavior of degenerate oscillatory integrals in two dimensions*, in preparation.
15. *Adapted coordinates in two dimensions and a proof of Puiseux's theorem*, submitted.
14. *Oscillatory integral decay, sublevel set growth, and the Newton polyhedron*, submitted.
13. *Resolution of singularities, asymptotic expansions of sublevel sets, and applications*,

submitted.

12. *A Coordinate-dependent local resolution of singularities with applications*, to appear, J. Funct. Anal.
11. *Simply nondegenerate multilinear oscillatory integral operators with smooth phase*, Math. Res. Lett. **15** (2008), no. 4, 653-660.
10. *A $T(1)$ Theorem for singular Radon transforms*, Math. Annalen **339** (2007), no. 3, 599-626.
9. *An analogue to a theorem of Fefferman and Phong for averaging operators along curves with fractional integral kernel*, Geometric and Functional Analysis, **17**, no. 4 (2007), 1106-1138.
8. (with C. Boner, G. Godfrey, and T. Mifflin) *Detecting terrorist activities in the 21st Century: A theory of detection for transactional networks*, in the book *21st Century Enabling Technologies and Policies for Counter-Terrorism*, eds. R. Popp and J. Yen, Wiley IEEE (2006), 349-366.
7. *Newton polygons and local integrability of negative powers of smooth functions in the plane*, Trans. Amer. Math. Soc. **358** (2006), no. 2, 657-670.
6. *Stability of sublevel set estimates and sharp L^2 estimates for Radon transforms in the plane*, Math. Res. Lett. **12** (2005), no. 1, 1-17.
5. *Sharp estimates for one-dimensional oscillatory integral operators with C^∞ phase*, American J. Math. **127** (2005), no. 3, 659-695.
4. *A direct resolution of singularities for functions of two variables with applications to analysis*, J. Analyse Math. **92** (2004), 233-257.
3. *Scalings, metrics, and smoothing of Radon transforms along curves*, J. Funct. Anal. **206** no.2, (2004), 307-321.
2. *Boundedness of singular Radon transforms on L^p spaces under a finite-type condition*, American J. Math. **123** (2001), 1009-1053.
1. *A method for proving L^p boundedness of singular Radon transforms in codimension one*, Duke Math. J. **108** (2001), 363-393.

Teaching Experience

2008-: Analysis I, University of Illinois at Chicago.

2005-2008: Instructor for calculus, differential equations, and graduate-level real analysis, SUNY Buffalo.

Spring 2002: Instructor, undergraduate courses, University of Wisconsin-Madison.

Fall 2000: Instructor, undergraduate complex analysis, MIT.

1998-2001: Recitation instructor for undergraduate mathematics courses, including multi-variable calculus and differential equations, MIT.

1996: Calculus instructor, Princeton University.

1995 - 1998: Grader for undergraduate mathematics courses, including calculus and linear algebra, Princeton University.

Grants and Awards

2007-: NSF Grant DMS 0654073

2000-2002: NSF Grant DMS 9988798

1992-1995: NSF Graduate Fellow

1990: Frederick J. Zeigler Memorial Award, Caltech

1990: Caltech Merit Award

Service

At the University at Buffalo I served on the analysis group committee and the colloquium committee, and also helped construct an analysis qualifying exam.

Invited Talks

October 1998: MIT

September 1999: Princeton

November 1999: MIT

April 2000: University of Wisconsin

February 2002: McMaster University

April 2002 (2 talks): University of Wisconsin

August 2003: Université de Montréal

February 2004: University of California, Santa Cruz

February 2004: Metron Inc.

December 2004: Simon Fraser University

January 2005 : National AMS meeting, Atlanta

February 2005: SUNY at Buffalo

February 2005: Ohio State University

March 2005: University of New Mexico

October 2006: University of Rochester

December 2006: CMS Annual Meeting, Toronto

January 2008: University of Illinois at Chicago

January 2008: University of California at Irvine

January 2008: University of Colorado, Boulder

February 2008: University of British Columbia

October 2008 (Planned): AMS Western Fall Sectional Meeting