

Curriculum Vitae for Hart Smith - Updated November, 2006

Education

Princeton University, 1984–1988.

Ph.D. in Mathematics, January, 1989.

Thesis supervisor: E. M. Stein.

Thesis title: “The subelliptic oblique derivative problem”.

University of California, Berkeley, 1980–1984.

A.B. in Mathematics, 1984.

Academic Positions

Professor, University of Washington, 1999–.

Associate Professor, University of Washington 1995–1999.

Assistant Professor, University of Washington 1991–1995.

Visiting Fellow, Princeton University, Fall–Winter 1991–1992.

CLE Moore Instructor, MIT, 1988–91.

Fellowships

Alfred P. Sloan Research Fellowship, 1994–1996.

National Science Foundation Postdoctoral Fellowship, 1988–1992.

Alfred P. Sloan Doctoral Dissertation Fellow, 1987–1988.

National Science Foundation Graduate Fellowship, 1984–1987.

Outside Service

AMS special session co-organizer, Eugene, OR, November 12-13, 2005.

Organizer of FRG Conference, University of Washington, July 27–28, 2005.

Organizing Committee, MGA Workshop V: Math Analysis and Multiscale Geometric Analysis, UCLA/IPAM, November 15–19, 2004.

Co-organizer for 2001 AMS-IMS-SIAM Summer Research Conference on Harmonic Analysis, Mt. Holyoke, June 25–July 6, 2001.

Recent Invited Lectures

Plenary Lecturer, AMS Sectional Meeting, Eugene, November 12-13, 2005.

Real Analysis, Harmonic Analysis, and Applications to PDE, Oberwolfach, Germany, July 3–9, 2005.

Paris Nord-Berkeley Analysis Seminar, UC Berkeley, February 3, 2005.

MGA Workshop V lecturer, UCLA/IPAM, November 16, 2004.

MGA Program Tutorial, UCLA/IPAM, September 13, 2004.

Trimester in Phase Space Analysis, University of Pisa, Italy. Invited lecturer (8 lectures), April 26–May 7, 2004.

Recent Development in Applied Harmonic Analysis, Spring Lecture Series at the University of Arkansas, Invited Lecturer, April 15–17, 2004.

Workshop on Multiscale Geometric Analysis, UCLA/IPAM, January 13–17, 2003.

Joint AMS-UMI Conference, Pisa, Italy, June 12–15, 2002.

Dispersive Partial Differential Equations, Oberwolfach, Germany, April 21–27, 2002.

2001 AMS-IMS-SIAM Summer Research Conference on Harmonic Analysis, Mt. Holyoke, June 25–July 6, 2001. (Organizing committee.)

C.N.R.S. meeting on Partial Differential Equations, Dinard, France, June 5–8, 2001.

Workshop in Oscillatory Integrals and Nonlinear PDE, UCLA/IPAM, March 19–23, 2001.

C.M.S. Symposium on Partial Differential Equations, Vancouver, December 10–12, 2000.

Harmonic Analysis, AMS Session, San Francisco, October 21–22, 2000.

Southern California Analysis and PDE Conference, UCLA, November 6–7, 1999.

Microlocal Analysis and Applications, AMS Special Session, Salt Lake City, September 25–26, 1999.

Real Analysis, workshop at Oberwolfach, Germany, July 12–16, 1999.

Invited Lecturer, International Congress of Mathematicians, Berlin, August 17–26, 1998.

Bibliography for Hart Smith – November 2006

Publications

- [1] *The subelliptic oblique derivative problem*, Comm. PDE **15** (1990), 97–137.
- [2] *A parametrix construction for a class of subelliptic differential operators*, Duke Math. J. **63** (1991), 343–354.
- [3] *An elementary proof of local solvability in two dimensions under condition (Ψ)* , Annals Math. **136** (1992), 335–337.
- [4] *A calculus for three-dimensional CR manifolds of finite type*, J. Funct. Anal. **120** (1994), 135–162.
- [5] *L^p regularity for the wave equation with strictly convex obstacles* (with C. Sogge), Duke Math. J. **73** (1994), 97–153.
- [6] *On Strichartz and eigenfunction estimates for low regularity metrics* (with C. Sogge), Math. Res. Letters **1** (1994), 729–737.
- [7] *On the critical semilinear wave equation outside convex obstacles* (with C. Sogge), Jour. Amer. Math. Soc. **8** (1995), 879–916.
- [8] *A Hardy space for Fourier integral operators*, Jour. Geom. Anal. **8** (1998), 629–654.
- [9] *A parametrix construction for wave equations with $C^{1,1}$ coefficients*, Annales Institut Fourier **48** (1998), 797–835.
- [10] *A Bessel function multiplier* (with D. Oberlin), Proc. Amer. Math. Soc. **127** (1999), 2911–2915.
- [11] *Averages over curves with torsion* (with D. Oberlin and C. Sogge), Math. Res. Letters **5** (1998), 535–539.
- [12] *Wave equations with low regularity coefficients*, Documenta Mathematica, Extra Volume ICM 1998, II, 723–730.
- [13] *Null form estimates for $(1/2, 1/2)$ symbols and local existence for a quasilinear Dirichlet-wave equation* (With C. Sogge), Annales Sci. ENS **33** (2000), 485–506.
- [14] *Global Strichartz estimates for nontrapping perturbations of the Laplacian* (With C. Sogge), Comm. PDE **25** (2000), 2171–2183.

- [15] *On global existence for nonlinear wave equations outside of convex obstacles* (With M. Keel and C. Sogge), Amer. J. Math. **122** (2000), 805–842.
- [16] *Global existence for a quasilinear wave equation outside of starshaped domains* (With M. Keel and C. Sogge), Jour. Funct. Anal. **189** (2002), 155–226.
- [17] *Sharp counterexamples to Strichartz estimates for low regularity metrics* (With D. Tataru), Math. Res. Lett. **9** (2002), 199–204.
- [18] *Almost global existence for some semilinear wave equations* (With M. Keel and C. Sogge), Journal d’Analyse **87** (2002), 265–279.
- [19] *Sharp well posedness results for the nonlinear wave equation* (With D. Tataru), Annals of Math. **162** (2005), 291–366.
- [20] *Almost global existence for quasilinear wave equations in three space dimensions* (With M. Keel and C. Sogge), J. Amer. Math. Soc. **17** (2004), 109–153.
- [21] *Spectral cluster estimates for $C^{1,1}$ metrics*, Amer. Jour. Math. **128** (2006), 1069–1103.
- [22] *Sharp $L^2 \rightarrow L^q$ bounds on spectral projectors for low regularity metrics*, Math. Res. Lett. **13** (2006), 965–972.
- [23] *On the L^p norm of spectral clusters for bounded planar domains* (with C. Sogge), Acta Mathematica, to appear.
- [24] *Sharp L^p bounds on spectral clusters for Hölder metrics* (With H. Koch and D. Tataru), Math. Res. Lett. **14** (2007).

Preprints

- [25] *On Strichartz estimates for Schrodinger operators in compact manifolds with boundary* (with M. Blair and C. Sogge).
- [26] *On multilinear spectral cluster estimates for manifolds with boundary* (with M. Blair and C. Sogge).