

CURRICULUM VITA OF JAMES MICHAEL WILSON

Personal data.

Born: June 20, 1955; Santa Cruz, California.

Current address: Department of Mathematics, University of Vermont, Burlington, Vermont 05405.

Phone number: 802-656-4326.

Website: <http://www.emba.uvm.edu/~wilson>.

Education.

[1] University of California, Los Angeles; 1977-1981; M.A., 1979; PhD, 1981.

- [1] "Four theorems with almost one proof"; January, 2005; analysis seminar, Universitat Autònoma de Barcelona.
- [2] "Three lectures on Littlewood-Paley theory"; April, 2005; short course, Universidad de Sevilla.
- [3] "Littlewood-Paley theory and applications"; May, 2005; colloquium; Universidad de Sevilla.
- [4] "The intrinsic square function"; May, 2005; Encounters in Real and Complex Analysis; Cuenca, Spain.
- [5] "Littlewood-Paley theory for non-doubling measures"; May, 2005; analysis seminar; Universidad Autónoma de Madrid.
- [6] "Partial differential equations, probability, and their connections to Littlewood-Paley theory"; May, 2005; special lecture, Universidad de Sevilla, Sevilla, Spain.
- [7] "Some Littlewood-Paley results"; Conference in Honor of Paul Koosis; October 23-26, 2003; University of Montreal, Montreal, Quebec, Canada.
- [8] "Littlewood-Paley estimates for non-doubling measures"; Sixth New Mexico Analysis Seminar; March 6-8, 2003; University of New Mexico, Albuquerque NM.
- [9] "A Littlewood-Paley estimate for almost-orthogonal sums"; April, 2002; analysis seminar, McGill University.
- [10] "Inequalities for gradients on non-smooth domains"; May, 2002; Special Session on Harmonic Analysis, AMS meeting (Montreal, Quebec, Canada).
- [11] "Weighted estimates for gradients on non-smooth domains"; October, 2001; Special Session on Harmonic Analysis, AMS meeting (Williamstown, Massachusetts).
- [12] "Littlewood-Paley estimates for sums of almost-orthogonal functions"; November, 2000; Michigan State University, analysis seminar.
- [13] | ; October, 2000; Brown University, analysis seminar.
- [14] "Inequalities for sums of non-compactly supported wavelets"; June, 2000; Universidad Autónoma de Madrid, analysis seminar.
- [15] " L^p ; L^q weighted norm inequalities for Bergman spaces"; December, 1994; Canadian Mathematical Society winter meeting (Montreal, Quebec, Canada).
- [16] "A two-parameter 'Bergman space' inequality"; October, 1994; Auburn Mini-Conference on Harmonic Analysis (Auburn University, Alabama).
- [17] "Littlewood-Paley theory in one and two parameters"; August, 1990; 'Harmonic Analysis{Sendai, 1990' (Tohoku University, Sendai, Japan).
- [18] "An L^2 weighted norm inequality for the Fourier transform"; 'Harmonic Analysis{Sendai, 1990' (Tohoku University, Sendai, Japan).

- [19] "Cauchy integrals on terrible curves"; March, 1990; Special Session on Singular Integrals, AMS meeting (Fayetteville, Arkansas).
- [20] "Chanillo-Wheeden inequalities for $0 < p < 1$ "; August, 1989; NSF-CBMS Regional Conference "Singular Integral Operators"; University of Montana.
- [21] " $| \cdot |$ "; August, 1989; McGill University, analysis seminar.
- [22] " $| \cdot |$ "; July, 1989; NSF-CBMS Regional Conference "Harmonic Analysis (Real Function Spaces and Related Areas)"; Auburn University.
- [23] "An eigenvalue estimate for the two-parameter Schrödinger operator"; May, 1988; McGill University, Québec, Canada.
- [24] "Some inequalities for singular integrals and degenerate Schrödinger operators"; October, 1987; Workshop on Weighted Norm Inequalities and Applications; Centre de Recherches Mathématiques, Université de Montréal, Québec, Canada.
- [25] "Weighted inequalities for the square function"; May, 1987; McGill University, Québec, Canada.
- [26] "Weighted inequalities for the square function"; July, 1985; AMS Joint Summer Research Conference (Arcata, California).
- [27] "Good- λ inequalities"; October, 1984; Brock University, Ontario, Canada.
- [28] "Weighted inequalities without A_∞

- [4] \A maximal function with applications to weighted Bergman spaces"; December, 1993; Auburn University Mini-Conference on Harmonic Analysis; Auburn University, Alabama.
- [5] \A two-parameter 'Bergman space' inequality"; October, 1994; Auburn University Mini-Conference on Harmonic Analysis; Auburn University, Alabama.
- [6] \ $L^p ; L^q$ weighted norm inequalities for Bergman spaces"; December, 1994; Canadian Mathematical Society winter meeting; Montreal, Quebec, Canada.
- [7] \Weighted two-parameter Bergman space inequalities"; November, 1996; Auburn University Mini-Conference on Harmonic Analysis; Auburn University, Alabama.
- [8] \A semi-discrete Littlewood-Paley inequality"; December, 1997; Auburn University Mini-Conference on Harmonic Analysis; Auburn University, Alabama.
- [9] \Recent progress in two-parameter Littlewood-Paley theory"; December, 1999; Auburn University Mini-Conference on Harmonic Analysis; Auburn University, Alabama.
- [10] \Paraproducts and the exponential square class"; July, 2000; Conference on Harmonic Analysis and Partial Differential Equations; El Escorial, Spain.
- [11] \The intrinsic square function"; Ninth New Mexico Analysis Seminar; April, 2006; Albuquerque, New Mexico.

External Support

- [1] Received a research grant from the Spanish Ministerio de Educación, Cultura, y Deporte (SAB2003-0003) to spend a sabbatical year in Spain; 24,100 euros.
- [2] Received National Science Foundation grant (#DMS 9501107), 1995-1997; project title: \Bergman space inequalities"; \$43,160.
- [3] Received National Science Foundation grant (#DMS 9401498), 1994-1995; project title: \Bergman space inequalities"; \$20,996.
- [4] Received \$1,500 grant from the American Mathematical Society for travel to the International Conference of Mathematicians in Kyoto, Japan (1990).
- [5] Received grant of 100,000 yen from Tohoku University (Sendai, Japan) for travel to the conference, \Harmonic Analysis{Sendai, 1990."
- [6] Received National Science Foundation grant (#DMS 8811775), 1988-1990; project title: \Multi-parameter harmonic analysis and Littlewood-Paley inequalities"; \$17,500.
- [7] Vermont EPSCoR grant; 1987-1990.
- [8] Summer Research Fellowship (UCRS); summer, 1987.
- [9] Received postdoctoral support from National Science Foundation grant #MCS 8203319 (1982-1983) under A. P. Calderón.

Professional Service.

[1] External member of PhD Committee for Kanghui Guo, McGill University, Department of

[6] Frequent writer/grader of real or complex variables qualifying exams.

College and University Service.

[1] Participation in incoming students reading program, 1991.

[2] Participation in University Seminar, 1999.

[3] EM College Faculty Standards Committee, 1999-2003; chairman, 2002-2003.

[4] University Honors/Individually Designed Majors Committee, 2000-2001.

[5] Foreign Languages and Mathematics Committee.

Book.

[1]

- [12] \Global orthogonality implies local almost-orthogonality," *Revista Matemática Iberoamericana* **16** (2000), 29-48.
- [13] \A semi-discrete Littlewood-Paley inequality," *Studia Mathematica* **153** (2002), 207-233.
- [14] \A two-parameter 'Bergman space' inequality," *Proc. Amer. Math. Soc.* **125** (1997), 755-762.
- [15] \Weighted norm estimates for gradients of half-space extensions" Richard L. Wheeden and J. Michael Wilson, *Indiana University Math. Journal* **44** (1995), 917-969.
- [16] \Weighted L^q estimates for derivatives of weighted H^p functions," Richard L. Wheeden and J. Michael Wilson, *Journal of Fourier Analysis and Applications* **4** (1998), 595-628.
- [17] \A counterexample in two-parameter harmonic analysis," *Bulletin of the London Math. Soc.* **23** (1991), 580-582.
- [18] \Eigenvalue estimates for degenerate partial differential operators," *Rocky Mountain Journal of Math.* **25** (1995), 1171-1187.
- [19] \Some two-weight norm inequalities for the Fourier transform," in the proceedings of 'Harmonic Analysis{Sendai, 1990,' edited by S. Igari (Springer Lecture Notes in Mathematics; 1991), 207-210.
- [20] \Littlewood-Paley theory in one and two parameters," in the proceedings of 'Harmonic Analysis{Sendai, 1990,' edited by S. Igari (Springer Lecture Notes in Mathematics; 1991), 201-206.
- [21] \Cauchy integrals on terrible curves," preprint (1990).
- [22] \Some two-parameter square function inequalities," *Indiana University Math. Journal* **40** (1991), 419-442.
- [23] \A counterexample in the theory of best approximation," *Journal of Approximation Theory* **63** (1990), 384-386.
- [24] J. Michael Wilson, Daniel Zwick, \Best approximation by subharmonic functions," *Proc. Amer. Math. Soc.* **114** (1992), 897-903.
- [25] \Chanillo-Wheeden inequalities for $0 < p < 1$," *Journal of the London Math. Soc.* **41** (1990), 283-294.
- [26] \Weighted inequalities for the square function," in *Commutative Harmonic Analysis: Proceedings of a SLU-GTE Conference held July 27-29, 1987* (see Contributed Talks above), pp. 299-305; American Mathematical Society Contemporary Mathematics Series, Volume 91 (1989).
- [27] \L^p weighted norm inequalities for the square function, $0 < p < 2$," *Illinois Journal of Math.* **33** (1989), 361-366.
- [28] \A sharp inequality for the square function," *Duke Math. Journal* **55** (1987), 879-888.

- [29] \Weighted norm inequalities for the continuous square function," *Trans. Amer. Math. Soc.* **314** (1989), 661-692.
- [30] \Green's theorem and balayage," *Michigan Math. Journal* **35** (1988), 21-27.
- [31] \A note on the g-function," *Proc. Amer. Math. Soc.* **102** (1988), 381-382.
- [32] \Weighted inequalities for the dyadic square function without dyadic A_∞ ," *Duke Math. Journal* **55** (1987), 19-49.
- [33] S. Y. A. Chang, J. Michael Wilson, Thomas H. Wol® , \Some weighted norm inequalities concerning the Schrödinger operators," *Comm. Math. Helv.* **60** (1985), 217-246.
- [34] \On the atomic decomposition for Hardy spaces," *Pacific J. of Math.* **116** (1985), 201-207.
- [35] Akihito Uchiyama, J. Michael Wilson, \Approximate identities and $H^1(\mathbf{R})$," *Proc. Amer. Math. Soc.* **88** (1983), 53-58.
- [36] \A simple proof of the atomic decomposition for $H^p(\mathbf{R}^n)$, $0 < p < 1$," *Studia Math.* **74** (1982), 25-33.