

# CURRICULUM VITAE OF LAURA DE CARLI

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## EDUCATION

Ph.D	University of California-Los Angeles, ( 1993)
Dottorato di Ricerca, (Ph.D)	University of Roma “La Sapienza”, ( 1993)
Master of Arts	University of California-Los Angeles (1990)
Bachelor	University of Pisa, (Italy), (1987)

## FULL-TIME ACADEMIC EXPERIENCE

Florida International Univ.	Associate Professor	5/2004 –present
Florida International Univ.	Assistant Professor	8/2002 –5/2004
University of Missouri – Columbia	Visiting Professor	8/2000 –5/2002
University of Naples (Italy)	Assistant Professor	8/2002 –10/2004

## PART-TIME ACADEMIC EXPERIENCE

Univ. of Missouri –Columbia	Visiting researcher	9/1/2004 - 11/1/2004
Univ. of Missouri –Columbia	Visiting researcher	4/25/2000 - 5/26/2000
Univ. of Missouri –Columbia	Visiting researcher	4/20/1999 - 5/25/1999
Univ. of Kyoto, Japan	Visiting researcher	2/5/1999 - 2/25/1999
Wright State Univ., (OH)	Visiting researcher	3/30/1998- 4/28/1998
Univ. of Kyoto, Japan	Visiting researcher	2/20/1998 - 3/6/1998
Univ. of Kyoto, Japan	Visiting researcher	6/30/1997 - 6/30/1997
McMaster Univ., Canada.	Visiting researcher	5/1/1995 - 9/30/1995

## LANGUAGES

Italian, English, Spanish

## NATIONALITY

Italian. US Permanent Resident since 2005.

## **Papers in Professional Journals**

- [1] L. De Carli, *Local  $L^p$  inequalities for Gegenbauer polynomials*, (2007), To appear in the volume “Topics in Classical Analysis and Applications in Honor of Daniel Waterman”, World Scientific (2008)
- [2] L. De Carli, M. Ash, *Growth of  $L^p$  Lebesgue constants for convex polyhedra and other regions*, (2006). To appear on Transaction of the AMS.
- [3] L. De Carli, *On the  $L^p$ - $L^q$  norm of the Hankel transform and related operators*, (2006). To appear on J. Math. Anal. Appl.
- [4] L. De Carli, S. Hudson, *Unique continuation for nonnegative solutions of Schrödinger type inequalities*. J. Math. Anal. Appl. 318 (2006), no 2, 467--471.
- [5] L. De Carli, *Uniform estimates of ultraspherical polynomials of large order*, Canadian Math. Bulletin. 48 (2005), no 3, 382—393.
- [6] L. De Carli and L. Grafakos, *On the restriction conjecture*, Michigan Math. J. 52 (2004), no. 1, 163--180.
- [7] L. De Carli and T. Okaji, *Strong Unique continuation for Schrodinger operator from a sphere*, Houston J. Math. 27 (2001), no. 1, 219--235.
- [8] L. De Carli and E. Laeng, *On the  $(p,p)$  norm of monotonic Fourier multipliers*, C. R. Acad. Sci. Paris Sér. I Math. 330 (2000), no. 8, 657--662.
- [9] L. De Carli and E. Laeng, *Truncations of weak-  $L^p$  functions and sharp  $L^p$  bounds for the segment multiplier*, Collect.Math. 51 (2000), no. 3, 309—326.
- [10] L. De Carli, *Unique continuation for elliptic operators with non multiple characteristics*, Israel J. Math. 118 (2000), 15--27.
- [11] L. De Carli and T. Okaji, *Strong Unique continuation for the Dirac operator*, Publ.Res. Inst. Math. Sci. 35 (1999), no. 6, 825—846.
- [12] L. De Carli and A. Iosevich, *Some sharp restriction theorems for homogeneous manifolds*, J. FourierAnal. Appl. 4 (1998), no. 1, 105--128.
- [13] L. De Carli and M. Nacinovich, *Unique continuation in abstract pseudoconcave CR manifolds*, Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4) 27 (1998), no. 1, 27--46.

[14] L. De Carli *Unique continuation for a class of higher order elliptic operators*, Pacific J. Math. 179 (1997), no. 1, 1--10.

[15] L. De Carli and A. Iosevich, *A restriction theorem for flat manifolds of codimension two*, Illinois J. Math. 39 (1995), no. 4, 576--585.

[16] L. De Carli,  *$L^p$  estimates for the Cauchy transform of distributions with respect to convex cones*, Rend. Sem. Mat. Univ. Padova 88 (1992), 35--53.

## **OTHER PUBLICATIONS AND PREPRINTS**

[1] L. De Carli, S. Hudson, *Geometric Remarks on the Level Curves of Harmonic Functions*, (2007), Submitted.

[2] Laura De Carli, Y. Quintana, *Algunas estimaciones en norma uniforme para polinimios de Jacobi (uniform estimates for Jacobi polynomials)*, (2006-2007) Preprint.

[3] L. De Carli, *Unique continuation for higher order elliptic operators*, Thesis, University of California, Los Angeles, (1993).

[4] L. De Carli, *Funzioni olomorfe a crescita lenta e problemi non lineari, (holomorphic functions with slow growth and non linear problems)*, Thesis, Universita' di Roma "La sapienza", (1993)

### **INVITED LECTURES (last 7 years)**

DePaul University, November 2007. Analysis seminar (tree lectures). Title: From hypercontractivity to best constants

AMS sectional meeting, Davidson, NC, March 2007. *Growth of  $L^p$  Lebesgue constants for convex polyhedra and other regions.*

CIMPA school, Merida (Venezuela), January 2006. *Best constant for the Hankel transform and hypercontractivity of Laguerre semigroup.*

DePaul University, December 2005. Contributed talk in the international conference "Harmonic Analysis and Ergodic theory" in honor of M. Ash and R. Jones in Chicago,

Department of Mathematics, Arizona State University, December 2004. Colloquium talk. *Reverse Holder inequalities for ultraspherical polynomials and spherical harmonics*

Department of Mathematics, Univ. of Missouri-Columbia, October 2004. Colloquium talk. *Reverse Holder inequalities for ultraspherical polynomials and spherical harmonics*

Department of Mathematics, DePaul Univ., Nov. 2004. Colloquium talk. Title: *Problems in Unique continuation.*

AMS sectional meeting, Albuquerque, (NM), Oct. 2004. *Unique continuation for elliptic operators: a non-Carleman approach.*

Harmonic Analysis and Partial Differential Equations, (International conference) El Escorial, (Spain), June. 2004. *Unique continuation for elliptic operators: a non-Carleman approach.*

AMS- Sociedad Matematica Mexicana joint meeting, Houston, (TX), May 2004. *Uniform estimates for ultraspherical polynomials.*

Department of Mathematics, Florida State University, Tallahassee, (FL), October 2003. Colloquium talk. *A Kintchine type inequality for ultraspherical polynomials.*

Department of Mathematics, Universidad autonoma de Madrid, June 2002. Colloquium talk. *Orthogonal polynomials and open problems in Harmonic Analysis.*

AMS-Unione Matematica Italiana joint meeting, Pisa, (Italy), June 2002. *On the restriction conjecture.*

Harmonic Analysis and Partial Differential Equations, (International conference) University of Missouri-Columbia, May 2002. *Asymptotic estimates for a class of classical orthogonal polynomials.*

Arkansas Spring Lecture 2002, University of Arkansas, Fayetteville (USA), May 2002. *On the restriction conjecture.*

International workshop on orthogonal polynomials and approximation theory, Leganes (Spain), June 2002. *Asymptotic estimates for Gegenbauer polynomials.*

Department of Mathematics, University of Wisconsin - Madison, October 2001. Colloquium talk. *Asymptotic estimates for Gegenbauer polynomials.*

Department of Mathematics, University of Potsdam, (Germany), July 2001. Colloquium talk. *Sharp norms of a class of  $(p,p)$  Fourier multipliers.*

Department of Mathematics, Washington State University, St. Louis, (MO), May 2001. Colloquium talk. *Sharp norms of a class of  $(p,p)$  Fourier multipliers.*

Department of Mathematics, Syracuse University, October 2000. Colloquium talk. *Sharp estimates for a class of operator with oscillating kernels.*

Harmonic analysis and Partial differential equations, (International conference) El Escorial, (Spain), July 2000. *Sharp estimates for a class of operator with oscillating kernels.*

Italian Harmonic Analysis meeting, Como, (Italy), June 2000. *Sharp inequalities related to the restriction conjecture.*

Department of Mathematics, University of Missouri-Columbia, May 2000. Colloquium talk. *Sharp inequalities related to the restriction conjecture.*

### **Professional service**

- 1) Co-author of of the Academic Learning compact (ALC) for the Department of Mathematics at FIU (see attached)
- 2) Referee for the Journal of Mathematical Analysis and Application, the Bulletin of the American Mathematical Society and the Journal of functional Analysis
- 3) Reviewer for the American Mathematical Society.
- 4) Co-editor of the volume "*Interpolation theory and applications*". Proceedings of the conference in honor of Professor Michael Cwikel held in Miami, FL, March 29--31, 2006, and the Special Session of the American Mathematical Society Eastern Sectional

Meeting held at Florida International University, Miami, FL, April 1--2, 2006.

[Contemporary Mathematics, 445](#). *American Mathematical Society, Providence, RI*, 2007

- 5) Organizer of the "Italian Harmonic Analysis meeting", Sorrento, (NA), (Italy), June 2002
- 6) Co-organizer of the AMS special section in Harmonic Analysis, Tallahassee (FL), March 2004.
- 7) Organizer of the AMS sectional meeting, Florida International Univ. on April 1-2 2006
- 8) Co-organizer of the special sessions in "Interpolation theory and application" with Mario Milman and M. Cwikel, and "Singular Integrals, Geometric Analysis, and Free Boundary Problems" with M. Korten and C. Moore, at the AMS sectional meeting, Florida International Univ. on April 1-2 2006
- 9) Co-organizer of the conference "Interpolation theory and application" in honor of M. Cwikel. Miami, April 2006.
- 10) Co-organizer of the annual South Florida Analysis seminar.
- 11) Co-editor of the volume "Topics in Classical Analysis and Applications in Honor of Daniel Waterman", World Scientific
- 12) Co-organizer of a special session in Harmonic Analysis for the AMS sectional meeting, DePaul University, October 2007.

### **Grants and honors**

Summer 2006. Awarded an Internal Summer research grant, (\$6000)

### **Courses taught**

- 1) Calculus 1 and 2 for life science students, (at UCLA),
- 2) Calculus 1 and 2 for geology students, (at the Univ. of Naples, Italy),
- 3) Wavelets and Fourier Analysis, (Graduate course at the Univ. of Naples, Italy),
- 4) Calculus for business students, (at the Univ. of Missouri-Columbia),
- 5) Discrete Mathematics, (at the Univ. of Missouri-Columbia)
- 6) Calculus 1, 2, 3, (at Florida International Univ. and DePaul Univ.),
- 7) Differential equations, (at Florida International Univ.),
- 8) History of Mathematics I and II, (at Florida International Univ.),
- 9) Introduction to Fourier Analysis, (Graduate course at Florida International Univ.),
- 10) Real Analysis (Graduate course at Florida International Univ.),
- 11) Methods of applied analysis (Graduate course at Florida International Univ.),
- 12) Fractals and measure theory, (Independent course for graduate students at Florida International Univ.)
- 13) Business Statistics (At DePaul University)
- 14) Calculus connection (for Math. Ed. Students) at the Univ. Of Missouri-Columbia

