

# Rodolfo H. Torres

## Biosketch & Curriculum Vitae

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### BIOSKETCH

Rodolfo H. Torres is Vice Chancellor for Research and Economic Development and a Distinguished Professor of Mathematics at the University of California, Riverside (UCR).

Torres was born in Rosario, Argentina, where he studied at the Instituto Politécnico Superior, a magnet high school of the National University of Rosario, and at the School of Exact Sciences and Engineering of the same university. He came to the US in 1985 and received his Ph.D. in Mathematics from Washington University in 1989. After postdoctoral positions at the Courant Institute of Mathematical Sciences of New York University and the University of Michigan, he joined the University of Kansas in 1996, where he quickly advanced through the ranks becoming a Full Professor in 2003. He then became a University Distinguished Professor in 2016. Before arriving at UCR in 2019, Torres served for more than six years in the Office of Research, first as Associate Vice Chancellor and then as Interim Vice Chancellor and President of the Kansas University Center for Research Inc. (KUCR). He is also a former Faculty Senate President at KU. At the national level, he is currently a member of the Mathematical and Physical Sciences Advisory Committee (MPSAC) and the Advisory Committee on Environmental Research and Education (AC-ERE) of the National Sciences Foundation (NSF), and the Board of Trustees of the Simons Laufer Mathematical Sciences Institute (SLMath) at Berkeley. Until recently, he served on the Executive Committee of the Council on Research (COR) of the Association of Public and Land-grant Universities (APLU).

Torres has supervised numerous postdoctoral, graduate, and undergraduate students and has received several teaching honors, including a Kemper Foundation Excellence in Teaching Award. He was elected to the inaugural class of Fellows of the American Mathematical Society (AMS) in 2013 and was featured in the Lathisms Calendar of Latinxs and Hispanics in Mathematical Sciences and the AMS in 2017. In 2018 he presented a Congressional Briefing invited by the SLMATH and the AMS and in 2022 he received the Educator of the Year Award from the Inland Empire Economic Partnership.

Torres' research interests include Fourier analysis and its applications in partial differential equations, signal analysis, and biology, and machine learning applications to research administration data. He specializes in the study of singular integrals, function spaces, and decomposition techniques and is most recognized for his work with various collaborators on foundational aspects of the multilinear Calderón-Zygmund theory. He has also collaborated with biologists to explain structural coloration phenomena in the tissues of animals, a work that received considerable media attention, including articles in The New York Times, Science Magazine, and Discovery Channel online. His research has been supported by grants from the NSF, and he has given numerous lectures and taught short courses around the world. He co-founded the Prairie Analysis Seminar, an annual conference funded by NSF that has garnered recognition for the quality and diversity of its speakers and the opportunity it provides to junior mathematicians to showcase their work. He is currently in the editorial board of two research journals in mathematics.

## EDUCATION

1989 Ph.D. in Mathematics, Washington University, St. Louis, USA  
1988 M.A. in Mathematics, Washington University, St. Louis, USA  
1984 Licenciatura in Mathematics, Universidad Nacional de Rosario, Argentina

## POSTDOCTORAL TRAINING

1992 – 1996 Assistant Professor (non-tenure track), University of Michigan  
1990 – 1992 Visiting Member, Courant Institute, New York University  
1989 – 1990 Visiting Assistant Professor, Washington University

## CURRENT POSITIONS

2019 – present Vice Chancellor for Research and Economic Development, UCR  
2019 – present Distinguished Professor, UCR

## PREVIOUS PROFESSIONAL EXPERIENCES

2019 – present Emeritus Distinguished Professor (retired), KU  
2019 – 2020 President Elect, University Senate, KU (did not serve because he left KU)  
2016 – 2019 University Distinguished Professor, KU  
2018 (five months) Interim Vice Chancellor for Research, KU  
2018 (five months) President, Kansas University Center for Research, Inc.  
2018 (five months) Vice President, Kansas University Center for Technology Commercialization  
2012 – 2018 Associate Vice Chancellor for Research, KU  
2012 – 2018 Vice President, Kansas University Center for Research, Inc.  
2011 – 2012 President of the Faculty Senate, KU  
2010 – 2011 President Elect, Faculty Senate, KU  
2005 – 2009 Director of Graduate Studies, Department of Mathematics, KU  
2003 – 2016 Professor, Department of Mathematics, KU  
1998 – 2003 Associate Professor, Department of Mathematics, KU  
1996 – 1998 Assistant Professor, Department of Mathematics, KU

## HONORS AND AWARDS

- *Educator of the Year Award*, Inland Empire Economic Partnership, 2022
- *Congressional Briefing*, American Mathematical Society and the Mathematical Sciences Research Institute (now named Simons Laufer Mathematical Sciences Institute), 2018
- *Featured in Lathisms Calendar*, Latinxs and Hispanics in Mathematical Sciences, 2017
- *Morrison Foundation Teaching Award*, University of Kansas, 2017
- *G. Bailey Price Teaching of Graduate Mathematics Award*, University of Kansas, 2017
- *Fellow of the American Mathematical Society*, 2013 (Inaugural Class of Fellows)
- *G. Bailey Price Teaching of Graduate Mathematics Award*, University of Kansas, 2009
- *Kemper Excellence in Teaching Award*, University of Kansas, 2003
- *Outstanding Graduate and Professional Mentor Award*, University of Kansas, 2002
- *Graduate Teaching Award, Center for Teaching Excellence*, University of Kansas, 2001
- *G. Bailey Price Teaching of Graduate Mathematics Award*, University of Kansas, 2000
- *Quest for the Best Award, Astute Center*, University of Kansas, 1997

## SELECTED MEDIA COVERAGE

- *Math Societies to Lawmakers: Help Us Make the Master Key*, Notices of the AMS, 4, 2019, <https://www.ams.org/journals/notices/201904/rnoti-p584.pdf>
- *The Beautiful Mathematically Ordered Colors of Birds*, ICERM, Brown University, 2017, [https://www.youtube.com/watch?v=0h\\_4vfIziaA](https://www.youtube.com/watch?v=0h_4vfIziaA)
- Invited "Highlight" report, National Science Foundation, February 2007. (These Highlights are often read by Advisory Committees and Congressional Staff to evaluate NSF performance.)
- *Blue's clues*, Yale Alumni Magazine, July/August 2004, [http://archives.yalealumnimagazine.com/issues/2004\\_07/findings.html](http://archives.yalealumnimagazine.com/issues/2004_07/findings.html)
- *Some Blend In, Others Dazzle*, The New York Times, July 20, 2004, <http://www.nytimes.com/2004/07/20/science/some-blend-in-others-dazzle.html>
- *What's Behind a Blue Behind?*, Science Now, May 21, 2004, <http://www.sciencemag.org/news/2004/05/whats-behind-blue-behind>
- *True colours*, Nature, Vol. 428, 596 - 597, April 8, 2004, <https://www.nature.com/articles/428596a>
- *Shedding Light on Avian Iridescence* Science Magazine, Vol. 299, p. 504, January 24, 2003, <http://science.sciencemag.org/content/299/5606/504.1>

## GRANTS

### Research Grants

- *Collaborative Research: EAGER: Automating HERD Reporting Using Machine Learning and Administrative Data*, National Science Foundation, Social, Behavioral, and Economic Science Office of Multidisciplinary Activities, PI (co-PI J. Huan, Univ. of Kansas; in collaboration with J. Rosenbloom, National Bureau of Economic Research Inc.), 2015-2018
- *Fourier Analysis and Multilinear Operators*, National Science Foundation, Analysis Program, PI, 2011-2015
- *Fourier Analysis Techniques, Operators, and Function Spaces*, National Science Foundation, Analysis Program, PI, 2008-2012
- *Fourier Analysis Techniques and Applications*, National Science Foundation, Analysis Program and Computational Neuroscience Program, PI, 2004-2008
- *Harmonic Analysis and Numerical Analysis Problems in MRI and PDE*, National Science Foundation, US-Argentina Program, co-PI, 2002-2006
- *Multilinear Operators, Discrete Decompositions, and Spectral Resolution of Nanostructures*, National Science Foundation, Analysis Program, PI, 2000-2004
- *Fourier Analysis Tool for Biological Nano-optics*, National Science Foundation, Biological Databases and Information Program, co-PI, R. Prum PI, 2000-2004
- *Real Variable Techniques in the Approximation of Functions and Boundary Value Problems in Nonsmooth Domains*, National Science Foundation, Analysis Program, PI, 1996-2000
- *Singular Integral Operators, Decompositions of Function Spaces Related to Wavelets, and Boundary Elements in Nonsmooth Domains*, National Science Foundation, Analysis Program, PI, 1993-1995

### Conferences Grants

(with E. Gavosto, KU; M. Korten, Kansas State University (KSU) and C. Moore, Washington State University)

- *Prairie Analysis Seminar 2015-2017*, National Science Foundation, Analysis Program, PI to cover the 2016 edition (2015 and 2017 editions covered by a different grant at KSU)
- *Prairie Analysis Seminar 2009-2011*, National Science Foundation, Analysis Program, PI to cover the 2010 edition (2009 and 2011 editions covered by a different grant at KSU)
- *Prairie Analysis Seminar 2008*, National Science Foundation, Analysis Program, PI
- *Prairie Analysis Seminar 2007*, National Science Foundation, Analysis Program, co-PI
- *Prairie Analysis Seminar 2005*, National Science Foundation, Analysis Program, co-PI
- *Prairie Analysis Seminar 2004*, National Science Foundation, Analysis Program, PI
- *Prairie Analysis Seminar 2003*, National Science Foundation, Analysis Program, co-PI

### Equipment Grants

- *Scientific Computing Research Environments for the Mathematical Sciences (SCREMS)*, National Science Foundation, Infrastructure Program, co-PI with C. Huneke PI, R. Byers, E. Gavosto, and W. Huang, 2001-2004
- *Major Research Instrumentation Program (MRI): Acquisition of High Performance Multiprocessors for Computational Research in Sciences and Engineering*, National Science Foundation, Experimental Program to Stimulate Computational Research, participant investigator, 1999-2002

### International Collaboration Grants

- *Análisis Real y Armónico*, Consejería de Innovación, Ciencia y Empresa, Junta de Andalucía, Spain, participant investigator, C. Pérez PI, 2010-2014
- *Análisis Armónico y Espacios de Banach*, Ministerio de Ciencia e Innovación, Spain, participant investigator, C. Pérez PI, 2010-2012
- *Harmonic Analysis and Numerical Analysis Problems in MRI and PDE*, National Science Foundation, US-Argentina Program, co-PI, with R. Nochetto PI and J. Benedetto, U. of Maryland, 2002-2006

### Travel Grants

- *NSF-AMS Travel Award to attend the ICM in Zürich, Switzerland*, 1994
- *NSF-AMS Travel Award to attend the ICM in Kyoto, Japan*, 1990

### Intramural Research Grants

- *International Travel Funds*, KU, 2017, 2019
- *General Research Fund, New Estimates for Multilinear Singular Integrals*, KU, 2008-2009
- *Self Faculty Scholar Fellowship finalist*, KU, 2002
- *Self Faculty Scholar Fellowship finalist*, KU, 2001
- *General Research Fund, Harmonic Analysis of Multilinear Operators*, KU, 2000
- *New Faculty Award, Wavelets Techniques in the Approximation of Band-limited Signals*, KU, 1997
- *H. H. Rackham Fellowship Award*, University of Michigan, 1993

### Funding as VC-RED at UCR

- *DOE to the PEOPLE: Opportunities for MSI faculty and students*, US Department of Energy, 2024-205
- *Advancing AI at Scale for National Security and Scientific Discovery Workshop*, UC LFRP, 2024-2025
- *US HUD Community Project and Development Funding for the OASIS Initiative*, US Department of Housing and Urban Development, 2023-2030
- *Jumpstarting Climate Action through Entrepreneurship in the Inland Empire*, UC Climate Initiative, 2023

## RESEARCH CONFERENCES, SPECIAL LECTURES, COLLOQUIA, AND SEMINARS PRESENTED

### 2024

- Conference in Harmonic Analysis and Differential Equations - In Honour of Professor Jill Pipher, Macquarie University, Sydney, Australia
- Seminario del IMAL "Carlos Segovia Fernandez", CONICET, Santa Fe, Argentina

### 2023

- Conference in Honor of Steven Krantz, Washington University, St. Louis, Missouri
- Programa Puertas Abiertas (Open Doors Program) IMAL, Santa Fe, Argentina (virtual lecture)
- Hispanic Heritage Month Colloquium, University of Alabama, Tuscaloosa, Alabama
- Colloquium, IMAL, Santa Fe, Argentina

### 2022

- Public Lecture, 200th anniversary of the publication of Fourier's monograph *Theorie Analytique de la Chaleur*, University of Padova, Italy
- Second Joint Meeting of the Argentine and Spanish Mathematical Societies, Ronda, Spain
- Conference in Honor of Guido Weiss, Washington University, St. Louis, Missouri
- Probability, Analysis and Data Science Seminar (virtual), Department of Mathematics, Iowa State University, Ames, Iowa

### 2021

- Seminario del IMAL "Carlos Segovia Fernandez" (virtual), CONICET, Santa Fe, Argentina
- Roosevelt Lectures in Math (two virtual talks), Roosevelt University, Chicago, Illinois
- Faraway Fourier Talks (virtual), Norbert Weiner Center, College Park, Maryland

### 2020

- Colloquium (virtual), Department of Mathematics, School of Chemical Engineering, Santa Fe, Argentina
- Approximation Theory, Harmonic Analysis and Related Topics Webinar, Brazil

### 2019

- Analysis Seminar, Basque Center for Applied Mathematics, Bilbao, Spain
- Analysis Seminar, University of Barcelona, Spain
- Biannual Conference of the Royal Mathematical Society of Spain, Santander, Spain

### 2018

- Workshop on Harmonic Analysis, Paul Langevin Center, Aussois, France
- International Conference on Harmonic Analysis and Its Applications, University of the Chinese Academy of Sciences, Yanqi Lake, China
- ICM 2018 Satellite Conference on Harmonic Analysis, Porto Alegre, Brazil
- Annual Meeting of the Argentine Mathematical Union, La Plata, Argentina
- Colloquium, Purdue University, West Lafayette, Indiana

### 2017

- Special Semester in Harmonic Analysis, MSRI, Berkeley, California
- International Conference on Fourier Analysis and Wavelets, RIASM, Madras University, India
- Workshop on Frontiers of Large Data Analytics, University of Kansas, Lawrence
- Session on Data Literacy and Data Visualization, APLU-CIMA Summer conference, Burlington, Vermont
- 31st Brazilian Mathematical Colloquium, Rio de Janeiro, Brazil

- CIMPA: Harmonic Analysis, Geometric Measure Theory and Applications, Buenos Aires, Argentina
- Analysis Seminar, University of Michigan, Ann Arbor, Michigan
- Special Analysis Seminar, Brown University, Providence, Rhode Island
- Colloquium, Washington University, St. Louis, Missouri
- Joint Meeting of the Argentine and Spanish Mathematical Societies, Buenos Aires, Argentina
- Lecture, School of Science and Engineering, National University of Rosario, Argentina

## 2016

- Conference on Harmonic Analysis and Nonlinear Partial Differential Equations, RIMS, Kyoto University, Japan
- Mathematics Seminar, Osaka University, Osaka, Japan
- Colloquium, Georgia Institute of Technology, Atlanta, Georgia
- Sharp Estimates and Bellman Functions in Harmonic Analysis Session, 1117th Meeting of the AMS, Athens, Georgia
- Public Lecture, ICERM, Brown University, Providence, Rhode Island

## 2015

- Analysis Seminar, Universidad del Pais Vasco, Bilbao, Spain
- Analysis Seminar, Wayne State University, Detroit, Michigan
- Harmonic Analysis and Applications Session, 1108th Meeting of the AMS, East Lansing, Michigan
- Invited Series of Research Lectures (4 two-hour lectures), Beijing Normal University, China
- Analysis Seminar, Beijing Normal University, China
- Analysis Seminar, University of Science and Technology, Beijing, China
- Analysis Seminar, School of Mathematical Sciences, Fudan University Shanghai, China
- Public Lecture, Workshop on Harmonic Analysis and Partial Differential Equations International Centre for Mathematical Sciences, Edinburgh, Scotland
- Colloquium, University of Alabama, Tuscaloosa, Alabama

## 2014

- Harmonic Analysis and Operator Theory Session, 1099th Meeting of the AMS, Albuquerque, New Mexico
- Afternoon in Honor Cora Sadosky, University of New Mexico, Albuquerque, New Mexico
- Invited Series of Research Lectures (6 two-hour lectures), Beijing Normal University, China
- Colloquium Beijing Normal University, China
- Advances in Harmonic Analysis and Partial Differential Equations Session, 1103er Meeting of the AMS, Halifax, Canada

## 2013

- CIMPA: New Trends in Applied Harmonic Analysis Sparse Representations, Compressed Sensing and Multifractal Analysis, Mar del Plata, Argentina
- Wavelets, Frames, and Related Expansions Session, 1094th Meeting of the AMS, St. Louis, Missouri
- Trimester of Harmonic Analysis and Applications to Partial Differential Equations (two talks), Institute for the Mathematical Sciences, Madrid, Spain
- CLEC Public Lecture, Georgia Southern University, Statesboro, Georgia
- Colloquium, Georgia Southern University, Statesboro, Georgia

## 2012

- Special Functions, Partial Differential Equations and Harmonic Analysis, a Conference in Honor of Calixto P. Calderón.
- Workshop on Phase Space Methods for Pseudo-Differential Operators, Erwin Schrödinger International Institute for Mathematical Physics Vienna, Austria
- Analysis Seminar, IMAL, CONICET, Santa Fe, Argentina

## 2011

- Workshop on Harmonic Analysis and Partial Differential Equations, Mexico City, Mexico
- Analysis Seminar, University of Seville, Spain
- Conference on Harmonic Analysis and Partial Differential Equations in Honor of Eric Sawyer, Fields Institute, Toronto, Canada
- Invited Lecture to the Real Academia Sevillana de Ciencias, University of Seville, Spain
- Summer School (5 two-hour lectures), Institute of Mathematics, University of Seville, Spain
- Harmonic Analysis and Applications Session, 1068th Meeting of the AMS, Statesboro, Georgia

## 2010

- Undergraduate Talk VIGRE@LSU: Student Colloquium, Louisiana State University, Baton Rouge
- Graduate Talk VIGRE@LSU: Student Colloquium, Louisiana State University, Baton Rouge
- Analysis Seminar, Louisiana State University, Baton Rouge
- Harmonic Analysis and Weighted Estimates Session, 1063 Meeting of the AMS, Los Angeles, CA
- Conference on Harmonic Analysis and Applications in Honor of Richard Wheeden, Seville Spain
- Conference on Functional Analysis in Valencia, Valencia, Spain
- Brent Smith Memorial Lecture, Kansas State University, Manhattan, Kansas
- I-Center Special Lecture, Kansas State University, Manhattan, Kansas
- Intensive Research Period on Euclidean Harmonic Analysis, Nilpotent Groups and PDE, De Giorgi Center, Pisa, Italy
- Wavelets Seminar, Washington University, St. Louis, Missouri
- Harmonic Analysis Session, Joint Meetings of the AMS and MAA, San Francisco, California

## 2009

- Workshop on Harmonic and Fourier Analysis, Wayne State University, Detroit, Michigan
- 3rd Latin American Congress of Mathematicians, Santiago, Chile
- Conference on Harmonic Analysis, Geometric Measure Theory and Quasiconformal Mappings, Centre de Recerca Matematica, Barcelona, Spain
- Analysis Seminar, Universidad Autonoma de Madrid
- Analysis Seminar, Centre de Recerca Matematica, Barcelona
- Colloquium, Department of Mathematics, University of Missouri, Columbia

## 2008

- Harmonic Analysis Session, 1046th Joint Meeting of the American Mathematical Society, Washington D.C.
- Conference on Harmonic Analysis and related topics, University of Seville, Spain
- Colloquium, Department of Mathematics, DePaul University, Chicago, Illinois
- Colloquium, Department of Mathematics, Universidad Nacional de Rosario, Argentina
- CIMPA-UNESCO, Argentina School on Real Analysis and Applications, La Falda, Argentina
- Leaders in Their Field Lecture Series (public lecture), Western Washington University
- Colloquium, Department of Mathematics, Western Washington University
- Harmonic Analysis and Related Topics Session, 1038th Meeting of the AMS, Indiana University
- Colloquium, Department of Mathematics, University of Calgary, Canada
- Workshop on Recent Developments in Elliptic Partial Differential Equations and Geometric Measure Theory, Banff Centre, Canada
- Analysis Seminar, Kansas State University, Manhattan, Kansas
- Workshop on Harmonic Analysis, Fields Institute, Toronto, Canada

## 2007

- Analysis Seminar, Georgia Tech. University, Georgia, Atlanta
- 10th New Mexico Analysis Seminar, University of New Mexico, Albuquerque
- Analysis Session, 1030th Meeting of the AMS, DePaul University, Chicago
- February Fourier Talks, University of Maryland, College Park, Maryland

## 2006

Due to personal reasons Torres could not travel and attend any conferences this year. He was invited to speak at the Conference in Harmonic Analysis and Applications and 8th National Meeting of Analysts, San Luis, Argentina; the Satellite Conference to the ICM-2006, Seville, Spain; and the Singular Integrals, Geometric Analysis, and Free Boundary Problems Session, 1015th Meeting of the AMS, Miami, Florida.

## 2005

- Colloquium, Institute of Biomathematics and Biometry, Munich, Germany
- Semester in Modern Methods of Time-Frequency Analysis, Schrödinger Institute, Vienna, Austria
- Public Lectures, Sociedad, Ciencia, Tecnología y Matemáticas, Universidad de la Laguna and Universidad de las Palmas, Spain
- Analysis Seminar, Universidad de La Laguna, Canary Islands, Spain
- 5th Dowart-Stewart Mathematics Lecture, Trinity College, Hartford, Connecticut
- Analysis Seminar, Florida International University, Miami, Florida

## 2004

- Annual Meeting of the Argentine Mathematical Society, Neuquen, Argentina
- Analysis Seminar, Universidad de La Laguna, Canary Islands, Spain
- Public Lecture, Spring Lecture Series, University of Arkansas, Fayetteville
- Harmonic Analysis Session, 994th Meeting of the AMS, Tallahassee, Florida

## 2003

- Analysis Seminar, CONICET, Santa Fe, Argentina
- Conference on Harmonic Analysis and Partial Differential Equations, Puerto Vallarta, Mexico
- Joint Meeting of the American and Spanish Mathematical Societies, Seville, Spain
- Analysis Seminar, University of Missouri, Columbia, Missouri

## 2002

- ICM Satellite Conference on Harmonic Analysis, Hangzhou, China
- Function Spaces in Harmonic Analysis Session, 976th Meeting of the AMS, Montreal, Canada

## 2001

- Graduate Workshop (3 lectures), Universidad Central de Venezuela, Caracas, Venezuela
- Analysis Seminar, University of Wisconsin, Madison, Wisconsin
- AMS Summer Research Conference on Harmonic Analysis, Mount Holyoke, Massachusetts

## 2000

- Colloquium, University of Massachusetts, Amherst, Massachusetts
- International Conference on Harmonic Analysis and PDE's, El Escorial, Spain
- Conference in Honor of Jaak Peetre, Lund, Sweden
- Graduate Workshop (3 lectures), Annual Meeting of the Argentine Math. Union, Rosario, Argentina
- Center for Advanced Scientific Computing Seminar, University of Kansas, Lawrence, Kansas

## 1999

- Joint Meeting of the American and Australian Mathematical Societies, Melbourne, Australia
- ShowMe Meeting, University of Missouri, Columbia, Missouri

**1998**

- Colloquium, University of Pittsburgh, Pittsburgh, Pennsylvania
- Frontiers of Knowledge-Honors Tutorials, University of Kansas, Lawrence, Kansas
- Expository Colloquium, University of Missouri, Kansas City, Missouri
- Partial Differential Equations Session, 932nd Meeting of the AMS, Manhattan, Kansas
- Russell Bradt Memorial Undergraduate Colloquium, University of Kansas, Lawrence, Kansas

**1997**

- Special Year In Harmonic Analysis and PDE, MSRI, Berkeley, California
- International Congress on Sampling Theory and Applications, Aveiro, Portugal
- Analysis Seminar, Universidad Autónoma, Madrid, Spain
- Analysis Seminar, Universidad del Pais Vasco, Bilbao, Spain

**1996**

- Colloquium, Universidad Nacional de Rosario, Argentina
- Colloquium, University of Kansas, Lawrence, Kansas
- International Congress on Complex Analysis, Cuernavaca, Mexico
- Center for Advanced Scientific Computing Seminar, University of Kansas, Lawrence, Kansas
- Applied Mathematics Seminar, University of Michigan, Ann Arbor

**1995**

- Invited Address at the 904th Meeting of the AMS, Kent
- Harmonic Analysis Session at the 900th Meeting of the AMS, Chicago
- Colloquium, Michigan State University, East Lansing
- Colloquium, University of Kansas, Lawrence
- Colloquium, Wright State University, Dayton
- Analysis Seminar, University of Minnesota, Minneapolis

**1994**

- Workshop on Harmonic Analysis and Elliptic PDE, ICMS, Edinburgh, Scotland
- Conference on Wavelets and Fractals, University of Pittsburgh, Pennsylvania
- Colloquium, University of Maryland, College Park, Maryland

**1993**

- Conference in Honor of Guido Weiss, Universidad Autónoma, Madrid, Spain
- Conference on Clifford Algebras in Analysis, University of Arkansas, Fayetteville
- Applied Mathematics Seminar, Wayne University, Detroit, Michigan
- Analysis Seminar, Michigan State University, East Lansing, Michigan

**1992**

- Analysis Seminar, University of Michigan, Ann Arbor, Michigan
- Analysis Seminar, Purdue University, West Lafayette, Indiana

**1991**

- X Latin American School of Mathematics, Córdoba, Argentina
- Analysis Seminar, Rutgers University, New Brunswick, New Jersey
- Harmonic Analysis Session at the 865th Meeting of the AMS, Tampa, Florida
- Analysis Seminar, University of Maryland, College Park, Maryland

**1990**

- Several Complex Variables and PDE Seminar, Princeton University, New Jersey
- Analysis Seminar, Courant Institute, New York
- Southwestern Bell Seminar, Washington University, St. Louis, Missouri
- Harmonic Analysis Session at the 856th Meeting of the AMS, Fayetteville, Arkansas
- Analysis Seminar, Temple University, Philadelphia, Pennsylvania

## 1989

- CBMS Conference on Singular Integrals, University of Montana, Missoula, Montana

## 1988

- Analysis Seminar, University of South Carolina, Columbia, South Carolina

## SHORT VISITS TO RESEARCH INSTITUTES AND SPECIAL PROGRAMAS

- Instituto de Matematica Aplicada del Litoral, Santa Fe, Argentina, (two days) Summer 2024
- Instituto de Matematica Aplicada del Litoral, Santa Fe, Argentina, (two days) Summer 2023
- Universidad Complutense de Madrid, Spain (three days) Winter 2022
- Basque Center for Applied Mathematics, Bilbao, Spain, (ten days) Spring 2019
- Institute of Mathematics of the University of Barcelona, Spain, (two days) Spring 2019
- Mathematical Sciences Research Institute, Berkeley, California, (one and a half month) Spring 2017
- Beijing Normal University, Beijing, China, (six days) Spring 2015
- Universidad del Pais Vasco, Bilbao, Spain, (five days) Spring 2015
- Beijing Normal University, Beijing, China, (ten days) Spring 2014
- Instituto de Matematica Aplicada del Litoral, Santa Fe, Argentina, (one week) Summer 2013
- Institute for the Mathematical Sciences, Madrid, Spain, (ten days) Spring 2013
- Schrödinger International Institute for Mathematical Physics Vienna, Austria, (one week) Fall 2012
- University of Seville, Spain, (ten days) Summer 2011
- Centro de Ricerca Matematica Ennio De Giorgi, Pisa, Italy, (ten days) Spring 2010
- Centre de Recerca Matematica, Barcelona, Spain, (ten days) Summer 2009
- Centre de Recerca Matematica, Barcelona, Spain, (one week) Spring 2009
- Banff International Research Station for Mathematical Discovery and Innovation, Canada, (six days) Spring 2008
- Fields Institute for Research in Mathematical Sciences, Toronto, Canada, (five days) Spring 2008
- Institute for Mathematics and its Applications Minneapolis, Minnesota, (ten days) Summer 2007
- Institute of Biomathematics, Munich, Germany, (two days) Summer 2005
- Mathematisches Forschungsinstitut Oberwolfach, Germany, (one week) Summer 2005
- Schrödinger International Institute for Mathematical Physics, Vienna, Austria, (five days) May 2005
- Instituto de Matematica Aplicada del Litoral, Santa Fe, Argentina, (five days) Fall 2003
- Mathematical Sciences Research Institute, Berkeley, California, (one month) Fall 1997

## OTHER PROFESSIONAL ACTIVITIES

### Review of Institutes and Academic Units

- External Reviewer for the Department of Mathematics & Statistics, University of Massachusetts, Amherst, 2021
- External Reviewer for the Department of Mathematics, University of Alabama, Tuscaloosa, 2017
- National Science Foundation, site reviewer for the Institute for Pure and Applied Mathematics Los Angeles, CA, 2014

### Editor

- Editor of the Journal of Fourier Analysis and Applications, 2013-present
- Division Editor of the Journal of Mathematical Analysis and Applications, 2011-present
- Associate Editor of the Journal of Mathematical Analysis and Applications, 2000-2011
- Editor of the Journal of Function Spaces and Applications, 2011-2020

## Review of Research Proposals

- National Science Foundation (panelist and mail reviewer for several programs)
- National Academy of Sciences, COBASE Program
- NSF-EPSCoR Kansas Program
- NATO Advanced Study Institute Proposals
- Agencia Nacional de Promoción Científica y Tecnológica, Argentina
- Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina
- National Agency of Evaluation and Prospects (ANEP), Spain
- Natural Sciences and Engineering Research Council (NSERC), Canada

## Review of Research Articles

- Abstract and Applied Analysis
- Acta Mathematica
- Acta Mathematica Hungarica
- Advances in Mathematics
- Analysis Mathematica
- Annals of Functional Analysis
- Applied Mathematics Letters
- Bulletin of the Brazilian Mathematical Society
- Canadian Journal of Mathematics
- Canadian Mathematical Bulletin
- Collectanea Mathematica
- Communications in Analysis and Geometry
- Constructive Approximation
- Contemporary Mathematics, Series of the American Mathematical Society
- Forum Mathematicum
- Frontiers of Mathematics in China
- IEEE Transactions on Signal Processing
- Illinois Journal of Mathematics
- IMA Journal of Applied Mathematics
- Indiana University Mathematics Journal
- Integral Equations and Operator Theory
- Integral Transforms and Special Functions
- International Journal of Mathematics
- International Journal of Mathematics and Mathematical Sciences
- International Mathematics Research Notices
- Israel Journal of Mathematics
- Italian Journal of Pure and Applied Mathematics
- Journal of Applied Mathematics and Computing
- Journal of the European Mathematical Society
- Journal of Fourier Analysis and Applications
- Journal of Functional Analysis
- Journal of Functional Analysis and Applications
- Journal of Inequalities and Applications
- Journal of Integral Equations and Applications
- Journal of Mathematical Analysis and Applications
- Journal of Mathematical Inequalities.
- Journal of Operator Theory

- Journal of the Mathematical Society of Japan
- Journal of the Royal Society Interface (biology)
- JP Journal of Mathematical Sciences
- Kodai Mathematical Journal
- Kyoto Journal of Mathematics
- Manuscripta Mathematica
- Mathematica Scandinavia
- Mathematical Research Letters
- Mathematical Reviews of the American Mathematical Society
- Mathematika
- Mathematische Nachrichten
- Mediterranean Journal of Mathematics
- Michigan Mathematical Journal
- Nagoya Mathematical Journal
- Nonlinear Analysis
- Online Journal of Analytic Combinatorics
- Potential Analysis
- Proceedings of the American Mathematical Society
- Proceedings of the Conference on Decision and Control, IEEE CSS
- Publicacions Matemàtiques
- Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales, Serie A
- Revista Matematica Complutense.
- Revista Matematica Iberoamericana
- Rocky Mountain Journal of Mathematics
- Science China, Mathematics
- Springer Verlag, Lecture Notes in Mathematics.
- Studia Mathematica
- The Royal Society of Edinburgh Proceedings
- Transactions of the American Mathematical Society
- Turkish Journal of Mathematics

### **Conferences Organized**

- Organizer of the Special Session on Harmonic Analysis and PDEs, Latinx in the Mathematical Sciences Conference, IPAM, Los Angeles, California, 2022
- Member of the Scientific Committee, International Conference on Fourier Analysis and Wavelets, RIASM, Madras University, India, 2017
- Co-organizer of the Special Session in Harmonic Analysis, Biannual Meeting of the Royal Mathematical Society of Spain, Granada, Spain, 2015
- Co-organizer of the annual Prairie Analysis Seminar, Lawrence and Manhattan, Kansas, 14 meetings, 2001-present, funded in part by NSF and MSRI
- Co-organizer of the Special Session in Harmonic Analysis, 1081st AMS Meeting, 2012
- Organizer of the Special Session in Harmonic Analysis and Applications, 964th AMS Meeting, 2001
- Co-organizer of the Special Session in Fourier Analysis and Applications, 904th AMS Meeting, 1995

### **Membership in Professional Societies**

- American Association for the Advancement of Science
- American Mathematical Society
- Association for Women in Mathematics
- Mathematical Association of America

- Society for Industrial and Applied Mathematics
- Society for the Advancement of Chicanos/Hispanics and Native Americans in Science
- Unión Matemática Argentina

## POSTDOCTS SUPERVISED

- Xinfeng Wu, University of Kansas, 2014-2017  
Current Position: Associate Professor, China University of Mining & Technology, Beijing, China
- Virginia Naibo, University of Kansas, 2002-2005  
Current Position: Professor, Kansas State University, Manhattan, Kansas
- Santiago Boza, University of Kansas, short visit in 2000  
Current Position: Associate Professor, University Politecnica de Catalunya, Barcelona, Spain

## STUDENTS SUPERVISED

### Ph.D. Students

- Joseph St.Amand  
GRA supporter by EAGER NSF grant, 2015-2018  
Ph.D. student in Electrical Engineering and Computer Sciences – **Ph.D. advisor A. Agah**  
Current Position: Chief Technology Officer, PatientsVoices, Cranford, New Jersey
- Lucas Chaffee, Ph.D. Spring 2015  
Thesis Title: *Commutators of Multilinear Singular Integral Operators with Pointwise Multiplication*  
First Position: Visiting Assistant Professor, Western Washington University  
Current Position: Senior Consultant, Communication Resources Northwest, LLC, Mill Creek, Washington
- Jarod Hart, Ph.D. Spring 2013  
Thesis Title: *Bilinear Littlewood-Paley Square Functions and Singular Integrals*  
First Position: Research Assistant Professor, Wayne State University  
Current Position: Chief Technology Officer, YAT, LLC, Madison, Wisconsin
- Erika Ward, Ph.D. Summer 2010  
Thesis Title: *New Estimates in Harmonic Analysis for Mixed Lebesgue Spaces*  
First Position: Visiting Assistant Professor, Jacksonville University  
Current Position: Associate Professor of the Practice, Boston College, Boston, Massachusetts
- Kabe Moen, Ph.D. Spring 2009 (co-chair with Carlos Pérez, University of Seville, Spain)  
Thesis Title: *Linear and Multilinear Fractional Operators: Weighted Inequalities, Sharp Bounds, and Other Properties*  
First Position: William Chauvenet Postdoctoral Lecturer, Washington University in St. Louis  
Current Position: Professor, University of Alabama, Tuscaloosa
- Diego Maldonado Ph.D., Summer 2005  
Thesis Title: *Multilinear Singular Integrals and Quadratic Estimates*  
First Position: Postdoctoral Position, University of Maryland  
Current Position: Professor, Kansas State University, Manhattan, Kansas

- Árpád Bényi, Ph.D., Spring 2002  
Thesis Title: *Bilinear Singular Integrals and Pseudodifferential Operators.*  
First Position: Postdoctoral Position, University of Massachusetts  
Current Position: Professor, Western Washington University, Bellingham, Washington

#### **M.A. Students**

- Justin Hukle-VanKirk M.A., Spring 2007  
Project Title: *A Wavelet-Galerkin Method for Two-Point Boundary Problems*
- John Laing M.A., Summer 2005 (co-chair with John Ralston, Physics Department, KU)  
Project Title: *Principal Component Analysis: Data Analysis Using Singular Value Decomposition*
- Brian Lindaman, M.A., Fall 2002  
Project Title: *Incorporating Smoothness into Wavelet Signal Compression*
- Helen McCulley, M.A., Spring 2000  
Project Title: *Wavelets and Medical Imaging: A Mammography Example*

#### **Undergraduate Students - Research Experiences Directed**

(Some of the awards received by the students and graduate school attended are listed)

- Kelsy Kinderknecht, 2010-2011  
Ohio State University, Mathematical Biosciences
- Richard Robinson, 2008-2010 (co-advised with Estela Gavosto, Mathematics Department, KU),  
Goldwater Scholarship Honorable Mention, NSF Doctoral Fellowship  
University of Washington, Mathematics
- Brian Moehring, 2005-2006  
University of Kansas, Mathematics
- Jordan Fisher, 2004-2005  
University of California, Santa Barbara, Mathematics
- Andrew Womack, 2004-2005 (co-advised with Richard Prum, Ecology and Evolutionary Biology, KU),  
Washington University in St. Louis, Mathematics
- Ian Tice, 2002-2003  
Goldwater Scholarship, NSF Doctoral Fellowship  
Courant Institute, New York University, Mathematics
- Charles Abbick, 2000-2001  
Goldwater Scholarship,  
University of Missouri, Kansas City, School of Dentistry
- Marvin Decker, 1998-1999 (co-advised with Estela Gavosto, Mathematics Department, KU),  
Goldwater Scholarship, NSF Doctoral Fellowship  
University of Chicago, Mathematics and Texas A&M University, Mathematics
- Christopher Kovach, 1997-1999 (co-advised with Richard Prum, Ecology and Evolutionary Biology, KU),

University of Iowa, Medical School, Neuroscience

- Scott Williamson, 1997 (co-advised with Richard Prum, Ecology and Evolutionary Biology, KU)  
NSF Doctoral Fellowship  
University of Kansas, Ecology and Evolutionary Biology

#### **PARTICIPATION IN OTHER THESIS COMMITTEES**

- 11 Ph.D. Thesis Committees in Mathematics at KU
- 1 Ph.D. Thesis Committee in Economics at KU
- 1 Ph.D. Thesis Committee in Ecology and Evolutionary Biology at KU
- 2 Ph.D. Thesis Committees in Chemistry at KU
- 1 Ph.D. Thesis Committee in Electrical Engineering at Washington University in St. Louis
- 1 Ph.D. Thesis Committee in Mathematics at the University of Michigan
- 1 Ph.D. Thesis Committee in Mathematics at the Munich University of Technology, Munich, Germany
- 1 Ph.D. Thesis Committee in Mathematics at the University of Seville, Spain
- 1 Ph.D. Thesis Committee in Mathematics at the University of Massachusetts
- 9 Master Examination Committees in Mathematics at KU

#### **LIST OF PUBLICATIONS**

##### **Books and Books Edited**

1. *Boundedness results for operators with singular kernels on distribution spaces*, Mem. Amer. Math. Soc., 442 (1991), 178 pages.
2. *Harmonic Analysis, Partial Differential Equations, and Related Topics* (co-editor with E. Gavosto, M. Korten, and C. Moore), AMS Contemporary Mathematics Series, #428, 2007.

##### **Chapters in Books**

3. *The sampling theorem,  $\varphi$ -transform, and Shannon Wavelets for  $\mathbf{R}$ ,  $\mathbf{Z}$ ,  $\mathbf{T}$  and  $\mathbf{Z}_N$*  (with M. Frazier), in *Wavelets: Mathematics and Applications*, CRC Press, Boca Raton, Florida, 1993.
4. **(a)** *Regularity and approximations results for the Maxwell problem on  $C^1$  and Lipschitz domains* (with M. Mitrea and G. Welland), **(b)** *Open Problem* (with G. Welland), in *Clifford Algebras in Analysis and Related Topics*, CRC Press, Boca Raton, Florida, 1995.
5. *The analysis of oscillatory behavior in signals through their samples*, in *Modern Sampling Theory: Mathematics and Applications*, J. Benedetto and P. Ferreira Eds., Birkhauser, 2001.
6. *Fourier blues: structural coloration of biological tissues* (with R. Prum), *Excursions in harmonic analysis*. Volume 2, 401-421, *Appl. Numer. Harmon. Anal.*, Birkhäuser-Springer, New York, 2013.
7. *Cora Sadosky: Her mathematics, mentorship, and professional contributions*, *Harmonic Analysis, Partial Differential Equations, Complex Analysis, Banach Spaces, and Operator Theory. Celebrating Cora Sadosky's Life*. Volume 1, *Celebrating Cora Sadosky's*. M.C. Pereyra, S. Marcantognini, A.M. Stokolos, W. Urbina, (Eds.), Springer, 2016.
8. *Multilinear weighted norm inequalities under integral type regularity conditions* (with L. Chaffee and X. Wu), *Harmonic Analysis, Partial Differential Equations and Applications In Honor of Richard L. Wheeden*. S. Chanillo, B. Franchi, G. Lu, C. Perez, E.T. Sawyer, (Eds.), Springer, 2017.

9. *The discrete Calderón reproducing formula of Frazier and Jawerth* (with A. Bényi), Functional Analysis, Harmonic Analysis, and Image Processing: A Collection of Papers in Honor of Björn Jawerth, M. Cwikel and M. Millman (Eds.), Contemporary Mathematics Volume: 693; AMS, 2017.

### Research Articles

10. *The Boundedness of Calderón-Zygmund operators on the spaces  $\dot{F}_p^{\alpha,q}$*  (with M. Frazier and G. Weiss), Rev. Mat. Iberoamericana, 4 (1988), 41-72.

11. *Continuity properties of pseudodifferential operators of type 1,1*, Comm. Partial Diff. Eq., 15 (1990), 1313-1328.

12. *Spaces of sequences, sampling theorem and functions of exponential type*, Studia Math., 100 (1991), 51-74.

13. *Singular integral equations, spaces of homogeneous type, and boundary elements in non-smooth domains* (with V. Adolfsson and B. Jawerth), Rev. U. Math. Arg., 37 (1991), 163-183.

14. *The Helmholtz equation and transmission problems with Lipschitz interfaces* (with G. Welland), Indiana University Math. J., 42 (1993), 1457-1485.

15. *A boundary integral method for parabolic equations in nonsmooth domains* (with V. Adolfsson and B. Jawerth), Comm. Pure Appl. Math., 47 (1994), 861-892.

16. *Layer potential operators and a space of boundary data for electromagnetism in nonsmooth domains* (with G. Welland), Michigan Math. J. 43 (1996), 189-206.

17. *A transmission problems in the scattering of electromagnetic waves by a penetrable object*, SIAM J. Math. Anal., 27 (1996), 1406-1423.

18. *Sampling and nonlinear approximation of band limited signals in mean oscillation spaces*, Proc. SAMPTA 97, Aveiro, Portugal, 1997.

19. *Maxwell's equations and dielectric obstacles with Lipschitz boundaries*, J. London Math. Soc., 57 (1998), 157-169.

20. *Mean oscillation of functions and the Paley-Wiener space*, J. Fourier Anal. and Appl., 4 (1998), 283-297.

21. *Coherent light scattering by blue feather barbs* (with R. Prum, S. Williamson, and J. Dyck), Nature, 396 (1998), 28-29.

22. *Two-dimensional Fourier analysis of the spongy medullary keratin of structurally coloured feather barbs* (with R. Prum, S. Williamson, and J. Dyck), Proc. Royal Society: Biological Sciences (B) 266 (1999), 13-22.

23. *Pseudodifferential operators with homogeneous symbols* (with L. Grafakos), Michigan Math. J. 46 (1999), 261-269.

24. *Coherent light scattering by nanostructures collagen arrays in the cranucles of the Malagasy Asities (Eurylaimidae: Aves)*, (with R. Prum, C. Kovach, S. Williamson, and S. Goodman), Journal of Experimental Biology, 202 (1999), 3507-3522.

25. *A multilinear Schur test and multiplier operators* (with L. Grafakos), J. Func. Anal. 187 (2001), 1-24.

26. *Azul de ave. Un color estructural* (with R. Prum), *Investigación y Ciencia* (Spanish edition of *Scientific American*) 299 (2001), 36-37.
27. *Azul de ave. Un color estructural* (with R. Prum), Reprinted in *Temas Investigación y Ciencia: El color*, 27 (2002), 30-31.
28. *Discrete decomposition for bilinear operators and almost diagonal conditions* (with L. Grafakos), *Trans. Amer. Math. Soc.* 354 (2002), 1153-1176.
29. *Multilinear Calderón-Zygmund theory* (with L. Grafakos), *Adv. in Math.* 165 (2002), 124-164.
30. *On multilinear singular integrals of Calderón-Zygmund type* (with L. Grafakos), *Publ. Mat. Vol. extra* (2002), 57-91.
31. *Maximal operator and weighted norm inequalities for multilinear singular integrals* (with L. Grafakos), *Indiana University Math. J.* 51 (2002), 1261-1276.
32. *Decomposition of  $\dot{B}_1^{0,1}(Z)$  into special atoms* (with S. Boza), *Math. Nachr.*, 254/255 (2003), 3-10.
33. *Sharp maximal function estimates for multilinear singular integrals* (with C. Pérez), *Contemp. Math.* 320 (2003), 323-331.
34. *Uniqueness in the inverse conductivity problem for conductivities with  $3/2$  derivatives in  $L^p$ ,  $p > 2n$*  (with R. Brown), *J. Fourier Anal. and Appl.* 9 (2003), 563-574.
35. *Coherent light scattering of ultraviolet light by avian feather barbs* (with R. Prum and S. Andersson), *Auk* 120 (2003), 163-170.
36. *Symbolic calculus for the transposes of bilinear pseudodifferential operators* (with A. Bényi), *Comm. Partial Diff. Eq.* 28 (2003), 1161-1181.
37. *Structural colouration of avian skin: convergent evolution of coherently scattering dermal collagen arrays* (with R. Prum), *Journal of Experimental Biology* 206 (2003), 2409-2429.
38. *A Fourier tool for the analysis of coherent light scattering by bio-optical nanostructures* (with R. Prum), *Integr. Comp. Biol.* 43 (2003), 591-602.
39. *Almost orthogonality and a class of bounded bilinear pseudodifferential operators* (with Á. Bényi), *Math. Res. Lett.* 11 (2004), 1-11.
40. *Structural colouration of mammalian skin: convergent evolution of coherently scattering dermal collagen arrays* (with R. Prum), *Journal of Experimental Biology* 207 (2004), 2157-2172.
41. *Calderón-Zygmund operators on mixed Lebesgue spaces and applications to null forms* (with A. Stefanov), *J. London Math. Soc.* 70 (2004), 447-462.
42. *Blue integumentary structural colours in dragonflies (Odonata) are not produced by incoherent Tyndall scattering* (with R. Prum and J. Cole), *Journal of Experimental Biology* 207 (2004), 3999-4009.
43. *Análisis espectral de nanoestructuras en tejidos biológicos* (with R. Prum) *Matemática 1* no. 2 (2005), <http://www.matematicalia.net/>.
44. *Anatomically Diverse Butterfly Scales Produce Structural Colors by Coherent Scattering* (with R. Prum and T. Quinn), *Journal of Experimental Biology* 209 (2006), 748-765.

45. *Sobolev space estimate and symbolic calculus for bilinear pseudodifferential operators* (with Á. Bényi and A. Nahmod), *J. Geom. Anal.* 16.3 (2006), 431-453.
46. *New maximal functions and multiple weights for the multilinear Calderón-Zygmund theory* (with A. Lerner, S. Ombrosi, C. Pérez, and R. Trujillo-González), *Adv. in Math.* 220, (2009) 1222-1264.
47. *Modulation invariant bilinear  $T(1)$  Theorem* (with Á. Bényi, C. Demeter, A. Nahmod, and C. Thiele), *J. Anal. Math.* 109 (2009), 279-352.
48. *Multilinear singular integrals with variable coefficients*, *Rev. Un. Mat. Argentina* 50 (2009), 153-170.
49. *Bilinear paraproducts revisited* (with Á. Bényi, D. Maldonado, and A. Nahmod), *Math. Nach.* 283 (2010), 1257-1276.
50. *Sharp weighted bounds for fractional integral operators* (with M. Lacey, K. Moen and C. Pérez), *J. Func. Anal.*, 259 (2010), no. 5, 1073-1097.
51. *On the Hörmander classes of bilinear pseudodifferential operators* (with Á. Bényi, D. Maldonado and V. Naibo), *J. Integral Eq. Oper. Theory*, 67 (2010), 341-364.
52. *The multilinear strong maximal function* (with L. Grafakos, L. Liu, and C. Pérez), *J. Geom. Anal.* 21 (2011), no. 1, 118-149.
53. *Sobolev space estimates for a class of bilinear pseudodifferential operators lacking symbolic calculus* (with F. Bernicot), *Anal. PDE* 4 (2011), 551-571.
54. *Rubio de Francia's extrapolation Theory: estimates for the distribution function* (with M.J. Carro and J. Soria), *J. London Math. Soc.* 85 (2012), 430-454.
55. *Compact bilinear operators and commutators* (with A. Bényi), *Proc. Amer. Math. Soc.* 141 (2013), no. 10, 3609-3621.
56. *On the Hörmander classes of bilinear pseudodifferential operators II* (with A. Bényi, F. Bernicot, D. Maldonado, and V. Naibo), *Indiana Univ. Math. J.* 62 (2013), no. 6, 1733-1764.
57. *End-point estimates for iterated commutators of multilinear singular integrals* (with C. Pérez, G. Pradolini and R. Trujillo-González), *Bull. London Math. Soc.* (2014) 46 (1), 26-42.
58. *Minimal regularity conditions for the end-point estimate of bilinear Calderón-Zygmund operators* (with C. Pérez), *Proc. Amer. Math. Soc., Series B*, 1 (2014), 1-13.
59. *Compactness properties of commutators of bilinear fractional integrals* (with A. Bényi, W. Damian, and K. Moen), *Math. Z.* 280 (2015), no. 1-2, 569-582.
60. *Compact bilinear commutators: The weighted case* (with A. Bényi, W. Damian, and K. Moen), *Michigan Math. J.* 64 (2015), no. 1, 39-51.
61. *Leibniz's rule, sampling and wavelets on mixed Lebesgue spaces* (with E. Ward), *J. of Fourier Anal. and Appl.* 21, (2015), no. 5, 1053-1076.
62. *Characterization of compactness of the commutators of bilinear fractional integral operators* (with L. Chaffee), *Potential Analysis*, 43 (2015), no. 3, 481-494.
63. *Several results in classical and modern harmonic analysis in mixed Lebesgue spaces* (with E. Ward), *RIMS Kôkyûroku Bessatsu (Bessatsu) B65* (2017), 159-177.

64. *Smoothing Properties of Bilinear Operators and Leibniz-Type Rules in Lebesgue and Mixed Lebesgue Spaces*, (with J. Hart and X. Wu), *Trans. Amer. Math. Soc.*, 370 (2018), 8581-8612.
65. *Characterization of compactness of commutators of bilinear singular integral operators*, (with L. Chaffee, P. Chen, Y. Han, and L. A. Ward), *Proc. Amer. Math. Soc.* 146 (2018), 3943-3953
66. *Compact bilinear commutators: The quasi Banach space case* (with Q. Xue and J. Yan), *J. Anal.* 26 (2018), 227-234.
67. *John-Nirenberg inequalities and weight invariant BMO spaces* (with J. Hart), *J. Geom. Anal.* 29 (2019), 1608-1648.
68. *Boundedness results for commutators with BMO functions via weighted estimates: a comprehensive approach* (with Á. Bényi, J.M. Martell, K. Moen, and E. Stachura), *Math. Annalen* 376 (2020) no. 1-2, 61-02.
69. *On compactness of commutators of multiplication and bilinear pseudodifferential operators and a new subspace of BMO* (with Q. Xue), *Rev. Mat. Iberoamericana* 36 (2020) no. 3, 939-956.
70. *Almost-Orthogonality in Fourier Analysis From Discrete Characterizations of Function Spaces, to Singular Integrals, to Leibniz Rules for Fractional Derivatives*, *Notices Amer. Math. Soc.* 67 (2020) no. 8, 1105-1115.
71. *Extrapolation of compactness for certain pseudodifferential operators* (with M.J. Carro and J. Soria) *Rev. Un. Mat. Argentina* 66 (2023), no.1, 177-186.
72. *An update on the compactness of bilinear commutators* (with Á. Bényi), Special Volume in Honor of Guido Weiss, (2022) accepted for publication.
73. *Compact bilinear operators and paraproducts revisited* (with Á. Bényi, G. Li, and T. Oh), submitted for publication.
74. *Compact  $T(1)$  theorem à la Stein* (with Á. Bényi, G. Li, and T. Oh), submitted for publication.

### Other Publications

75. *Remembering Cora Sadosky* (with E.A. Gavosto, A. Nahmod, C. Pereyra, G. Ponce, and W. Urbina), *AWM Newsletter*, Volume: 41 (2) 2011.
76. *Research Analytics: Facilitating the Use of Metrics to Improve the Research Profile of Academic Programs*, Merrill Advanced Studies Center Report No. 117 (2013), 96-105.
77. *Why I Became a Mathematician*, I, *Mathematician*, P. Casazza, S.G. Krantz, and R.D. Ruden (Eds), Mathematical Association of America, 2015.
78. *Enhancing and Automating University Reporting Of R&D Expenditure Data Using Machine Learning Techniques* (with J.L. Rosenbloom, J. St. Amand, and A. Sadovsky), Merrill Advanced Studies Center Report No. 121 (2017), 35-46.
79. *New Challenges and Opportunities for International Research Collaborations on a More Level Playing Field*, Merrill Advanced Studies Center Report No. 122, (2019).
80. *Guido Weiss: from immigrant boy to internationally renowned mathematician* (with S. Kelly), *J. Geom. Anal.* 31 (2021), no. 9, 9146-9179.

**81.** *Guido L. Weiss (1928–2021)* E. Hernández and E. Wilson, with contributions of R. Coifman, M. Maggioni, Y. Meyer, F. Ricci, H. Sikic, F. Soria, A. Tabacco, and R.H. Torres, *Notices Amer. Math. Soc.* 70 (2023), no.1, 95-103.