

Angel R. Pineda

Curriculum Vitae

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Department of Mathematics
Manhattan College, Riverdale, NY
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Professional Experience

Manhattan College	Associate Professor of Mathematics	2015 - present
CSU, Fullerton	Associate Professor of Mathematics	2013 - 2015
CSU, Fullerton	Assistant Professor of Mathematics	2007 - 2013

Sabbatical Visiting Position

University of Southern California	Magnetic Resonance Engineering Laboratory	2013 - 2014
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Education

Stanford University	Postdoctoral Fellowship in Radiology	2002 - 2006
Advisors:	Norbert J. Pelc and Rebecca Fahrig	

University of Arizona	Ph.D. in Applied Mathematics	1995 - 2002
Advisor:	Harrison H. Barrett	
Dissertation:	Detection-Theoretic Evaluation in Digital Radiography and Optical Tomography	

Lafayette College	B.S. in Chemical Engineering	1991 - 1995
Advisors:	Robert G. Root and Javad Tavakoli	
Summa Cum Laude		

Research Interests

General:	Applied Mathematics, Medical Imaging, Statistical Inference
Specialization:	Inverse Problems in Medical Imaging

Honors

Co-authored article "Water-fat separation with IDEAL gradient-echo imaging" chosen as one of the 25 most important papers in the first 25 years of JMRI		2016
CSU, Fullerton	Teacher Scholar Award for Mentoring Student Research, awarded by the College of Science and Mathematics	2011
CSU, Fullerton	Outstanding Educator of the Year, received one of two awards given in math by the Associated Students, Inc.	2011
Mathematical Association of America	Dolciani-Halloran Project NExT Fellow	2008 - 2009
American Lung Association	Senior Research Training Fellowship	2004 - 2006
University of Arizona	Michael A. Cusanovich Research Fellowship	1998 - 1999
USA TODAY's All Academic Team (Honorable Mention)		1995
Volunteer of the Year, Lafayette College		1995
Phi Beta Kappa		1995
Tau Beta Pi		1994
Sigma Xi		1992

Teaching Experience

Manhattan College

Undergraduate Courses:

Calculus II (MATH 186)
Elementary Statistics (MATH 230)
Probability (MATH 331)
Independent Study: Undergraduate Research (MATH 499)

Graduate Courses:

Computational Methods for Analytics (MATG 611)
Statistical Inference (MATG 632)
Advanced Statistical Inference (MATG 633)

CSU, Fullerton

Undergraduate Courses:

Business Calculus (Math 135)
Differential Equations with Linear Algebra (Math 250B)
Problem Solving (Math 281)
Linear Algebra (Math 307)
Introduction to Mathematical Computation (Math 320)
Mathematical Probability (Math 335)
Statistics for the Natural Sciences (Math 338)
Numerical Analysis (Math 340)
Mathematical Statistics (Math 435)
Internship (Math 495)
Undergraduate Research (Math 497)
Independent Study (Math 499)

Graduate Courses:

Numerical Analysis I,II (Math 501 A,B)
Probability and Statistics I,II (Math 502 A,B)
Mathematical Modeling I,II (Math 503 A,B)
Stochastic Modeling and Inverse Problems I,II (Math 504 A,B)
Applied Mathematics Project (Math 597)

Mentored Research Students (including university, funding sources¹ and dates)

Graduate

Katherine Encarnacion	Manhattan College	CRFEC	Fall 2015 - Spring 2016
Nicholas Italiano	Manhattan College	CRFEC	Fall 2015 - Spring 2016
Michael Scarinci	Manhattan College	CRFEC	Fall 2015 - Spring 2016
Emily K. Bice	CSU, Fullerton	GE & CSUF	Spring 2009 - Summer 2010
Antonio Gonzalez	CSU, Fullerton	NIH	Spring 2008 - Fall 2008

Undergraduate

Hope Miedema	Manhattan College	Spring 2017
Melissa Brenner	Manhattan College	Fall 2016
Sana Altaf	Manhattan College	Fall 2016

¹CRFEC: Catherine and Robert Fenton Endowed Chair (Lance Evans), GE: General Electric, CSUF: California State University, Fullerton, NIH: National Institutes of Health, MARC: Minority Access to Research Careers, CURM: Center for Undergraduate Research in Mathematics, LSAMP: Louis Stokes Alliance for Minority Participation, McNair: McNair Scholars Program and AAPM: American Association of Physicists in Medicine.

Erick Ortega	CSU, Fullerton	LSAMP	Fall 2014 - Spring 2015
Rudolph Saenz	CSU, Fullerton	LSAMP	Fall 2014 - Spring 2015
Cody Gruebele	CSU, Fullerton	CSUF	Fall 2012 - Spring 2013
Jorly Chatouphonexay	CSU, Fullerton	MARC	Summer 2010 - Spring 2013
Anne Calder	CSU, Fullerton	CURM	Fall 2010 - Spring 2011
Li-Hsuan Huang	CSU, Fullerton	CURM & LSAMP	Fall 2010 - Spring 2011
Eden Ellis	CSU, Fullerton	CURM & CSUF	Summer 2010 - Spring 2011
Kevin Park	CSU, Fullerton	CURM & LSAMP & McNair	Summer 2009 - Spring 2011
Daniel Jewell	CSU, Fullerton	NIH	Spring 2008 - Summer 2008
Joaquin Alvarado	CSU, Fullerton	Start-up funds	Summer 2008
Victor Ying	CSU, Fullerton	Start-up funds	Summer 2008
Abhik Kumar	Stanford University	AAPM	Summer 2005

Selected Presentations by *Mentored Graduate Students* in **Research and Class Projects**

1. *Scarinci M, Encarnacion K, Italiano N*, “3D Visualization of Growth Pattern of *Artemisia tridentata* (Sagebrush)”, *Talk at an SIAM e-poster Session at the Annual Meeting of the Society of Industrial and Applied Mathematics (SIAM)*, Boston, MA, 2016.
2. *Bice EK*, “Cramér-Rao Bound for Estimating Non-linear Parameters in a Model for Chemical Species Separation using MRI”, *Talk at an AMS Special Session on Interactions of Inverse Problems, Signal Processing, and Imaging at the Joint Mathematics Meetings*, San Francisco, CA, 2010.
3. *Sarcon A, Abbasi N, Pineda AR*, “The Mathematics of Imaging Blood Flow”, *Mathematics Colloquium*, CSU, Fullerton, CA, 2008.

Selected Presentations by *Mentored Undergraduate Students* in **Research and Class Projects**

1. *Ortega E, Saenz RV*, “Importance of Sampling Pattern and Regularization in Under-Sampled Magnetic Resonance Imaging (MRI)”, *Talk at the Pacific Coast Undergraduate Math Conference (PCUMC)*, Thousand Oaks, CA, 2015.
2. *Gruebele CL*, “Comparison of Two Models for Fat/Water Separation in Magnetic Resonance Imaging (MRI)”, *Undergraduate Poster at the Joint Mathematics Meetings*, San Diego, CA, 2013 (Outstanding Presentation Award).
3. *Chatouphonexay J*, “Maximum Likelihood Estimation of the Fat Fraction Using Magnetic Resonance Imaging at High Signal-to-Noise Ratio”, *Undergraduate Poster at the SACNAS National Meeting*, Seattle, WA, 2012.
4. *Calder AM, Ellis EA*, “Monte Carlo Methods to Understand the Statistical Estimation of the Fat Fraction in Magnetic Resonance Imaging (MRI)”, *Talk at the Center for Undergraduate Research in Mathematics (CURM) Conference*, Provo, UT, 2011.
5. *Huang LH, Park K*, “Analytical Methods to Understand the Statistical Estimation of the Fat Fraction in Magnetic Resonance Imaging (MRI)”, *Talk at the Pacific Coast Undergraduate Math Conference (PCUMC)*, Los Angeles, CA, 2011.
6. *Laidlaw M*, “Image Compression using Singular Value Decomposition”, *Talk at the Pacific Coast Undergraduate Mathematics Conference*, Pepperdine University, Malibu, CA, 2010.
7. *Park K*, “Noise Analysis of Accelerated Magnetic Resonance Imaging (MRI) Using Multiple Coils”, *Undergraduate Poster at the Joint Mathematics Meetings*, San Francisco, CA, 2010.

- Hoff P, "Structure of Error in Iterative Methods", *Talk at the Southern California Conference on Undergraduate Research*, CSU, Pomona, CA, 2008.

Peer-Reviewed Journal Publications by Mentored Undergraduate Students

- Calder AM, Ellis EA, Huang LH, Park K, "Statistical Modeling through Analytical and Monte Carlo Methods of the Fat Fraction in Magnetic Resonance Imaging (MRI)", *SIAM Undergraduate Research Online*, **5**, 2012, 116-127.

Theses by Mentored Undergraduate Students

- Chatouphonexay, J, "Maximum Likelihood Estimation of the Fat Fraction Using Magnetic Resonance Imaging", *Minority Access to Research Careers (MARC) Scholars Program*, 2013.
- Park K, "Noise Analysis of Accelerated Magnetic Resonance Imaging (MRI) Using Multiple Coils", *McNair Scholars Program*, 2010.

Proceedings Publications by Mentored Graduate Students

- Encarnacion K, Scarinci M, "Visualization of Xylary Rings of Stems of *Artemisia tridentata* spp. *Wyomingensis*", *The Manhattan Scientist*, 2015, 157-164.

Proceedings Publications by Mentored Undergraduate Students

- Ortega E, Saenz RV, "Importance of Sampling Pattern and Regularization in Under-Sampled Magnetic Resonance Imaging (MRI)", *DIMENSIONS: The Journal of Undergraduate Research in Natural Sciences & Mathematics at CSUF*, 2015, 101-112.
- Gruebele CL, "Comparison of Two Models for Fat/Water Separation in Magnetic Resonance Imaging (MRI)", *DIMENSIONS: The Journal of Undergraduate Research in Natural Sciences & Mathematics at CSUF*, 2013, 94-98.
- Chatouphonexay, J, "Maximum Likelihood Estimation of the Fat Fraction Using Magnetic Resonance Imaging at High Signal-to-Noise Ratio", *DIMENSIONS: The Journal of Undergraduate Research in Natural Sciences & Mathematics at CSUF*, 2012, 37-44.
- Calder AM, Ellis EA, Huang LH, Park K, "Statistical Modeling of the Fat Fraction in Magnetic Resonance Imaging (MRI)", *DIMENSIONS: The Journal of Undergraduate Research in Natural Sciences & Mathematics at CSUF*, 2011, 114-123.
- Kumar A, "Effect of Lesion Size on the Detection and Size Estimation of Lung Nodules", *Proceedings of the National Conference on Undergraduate Research*, 2006, 2885-2892.

Publications in Preparation, Review or Press by Mentored Students

- Altaf S, Brenner M, "Statistical Binary Classification of MRI Data", *in preparation for the Manhattan Scientist*.

Team-based Consulting

Data Consulting Project	Project Topic: Visualizing Sagebrush Growth	2015
Role: Co-Mentor (with L. Evans)	Manhattan College	
Applied Math Project	Project Topic: Hurricane Modeling	2015
Role: Co-Mentor (with J. Grace)	CSU, Fullerton & Earth Science Associates	

Applied Math Project Role: Co-Mentor (with W. Gearhart)	Project Topic: Magnetic Resonance Imaging CSU, Fullerton & GE Healthcare	2008
Math Modeling in Industry Role: Participant	Project Topic: Computed Tomography Institute for Mathematics and its Applications	2000
Technology Clinic Role: Participant	Project Topic: Queuing of Sleep Apnea Patients Lafayette College	1994-1995

Visiting Graduate Student Research Position

Summer Research Program	Theoretical Biology and Biophysics Group Los Alamos National Laboratory	1997
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Professional Service at National or International Level

International Mathematical Union (IMU) Committee for Developing Countries		2014 - present
Advisory Board for GRAM: Graduate Readiness and Access in Mathematics (NSF funded grant at CSU, Fullerton)		2015 - present
MAA Subcommittee on Research by Undergraduates (SCRU)		2011 - 2017
Orientation for judges at the Undergraduate Poster Session at the JMM		2013 - 2015
Co-organizer for MAA SCRU Panel <i>with Herbert Medina, "Undergraduate Research: View Points From the Student Side"</i>	Joint Mathematics Meetings	2015
Regional Coordinator for Central America of IMU Report on Mathematics in Latin America and the Caribbean		2011-2014
Co-organizer for MAA SCRU Panel <i>with Sarah S. Adams, "Successful and Diverse Models for Mentoring Research by Undergraduates"</i>	Joint Mathematics Meetings	2012
Volunteer Lecturer in Numerical Analysis U.S. National Committee for Mathematics	Royal University of Phnom Penh, Cambodia	2009, 2010

Service Related Publications:

"Undergraduate Research: Viewpoints from the Student Side", *Math Horizons*, Sept. 2016, 23-25.
with Alejandro Camacho, Jeffrey Layton Davis, Sarah Klett, Herbert Medina, Samantha VanSchalkwyk

IMU Report on Mathematics in Latin America and the Caribbean <i>with Jose Antonio de la Peña, Luis Caceres, Carlos Di Prisco and Andrea Solotar</i> http://www.mathunion.org/cdc/research-and-useful-links/		2014
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Mentoring and Judging at the Undergraduate Poster Session of the JMM <i>with James P. Solazzo</i> http://www.maa.org/programs/students/undergraduate-research/jmm-poster-session/judging-criteria		2013
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Selected Television Interviews: “Math in the Movies” and “The Science of Beer Bubbles”
(in Spanish, for Discoveries and Breakthroughs in Science)

Journal Reviewer:

Medical Physics Journal, Magnetic Resonance in Medicine, IEEE Transactions on Medical Imaging,
Journal of the Optical Society of America A, Applied Optics, SIAM Journal on Imaging Sciences,
UMAP Journal: Undergraduate Mathematics and Its Applications, Optics Express.

Grant Reviewer:

National Science Foundation

College and University Service

CFA Summer Grant Committee	Manhattan College	2016-2017
NSM Assistant Dean Search	CSUF	2013
MARC Scholar Selection Committee	CSUF	2012, 2015
Reviewer for FDC Grants	CSUF	2011

Departmental Service

Prob & Stats Committee (Chair)	Manhattan College	2016 - present
Graduate Committee	Manhattan College	2015 - present
Computer Science in Math	Manhattan College	2015 - present
Fall Open House	Manhattan College	2015
Department Personnel Committee	CSU, Fullerton	2014 - 2015
Applied Math Graduate Committee	CSU, Fullerton	2007 - 2013, 2014 - 2015
Math Club Adviser	CSU, Fullerton	2008 - 2013
Internship Coordinator	CSU, Fullerton	2010 - 2013, 2014 - 2015
Chair, Social Activities Committee	CSU, Fullerton	2012 - 2013
Website Committee	CSU, Fullerton	2012 - 2013
Applied Math Search Committee	CSU, Fullerton	2012 - 2013
Colloquium Organizer	CSU, Fullerton	2007 - 2010
Chair, Happy Hour Committee	Stanford University	2004

Selected Service in Panels

El Posgrado: Un Asunto Familiar	CSU, Fullerton	2013
<i>Panel in Spanish to help families understand the graduate school experience</i>		
MARC-RCP Family Day	CSU, Fullerton	2013
<i>The graduate school experience, Spanish translation of welcoming remarks</i>		
New Faculty Orientation	CSU, Fullerton	2012
<i>Life and Teaching at CSUF</i>		
PEERS (Science Mentoring Program) UCLA		2011
<i>Life as a Professor</i>		

Mentoring Programs

Minority Access to Research Careers (MARC) at CSUF
Howard Hughes Medical Institute (HHMI) Scholars Program at CSUF
Louis Stokes Alliance for Minority Participation (LSAMP) at CSUF

McNair Scholars Program at CSUF
 Enhancing Postbaccalaureate Opportunities at Cal State Fullerton for Hispanic Students (EPOCHS)
 National Alliance for Doctoral Studies in the Mathematical Sciences

Professional Memberships

Society of Industrial and Applied Mathematics (SIAM)
 Mathematical Association of America (MAA)
 Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)
 Association for Women in Mathematics (AWM)

Community Leadership

Counselor	Camp Wildcat	1997-1999
<i>Program which took underprivileged grade school children backpacking.</i>		
Co-coordinator	Alternative Spring Break (Honduras)	1992-1995
<i>Program for undergraduates to do community service in Honduras during Spring break.</i>		
Co-founder	Spanish Floor	1994
<i>Living environment for native speakers and students wanting to learn Spanish.</i>		

Programs to Support All Students

LGBT Safe Zone Program	CSUF	2012 - 2015
AB540 Safe Zone Program	CSUF	2012 - 2015

Selected Invited Talks

1. *Segundo Congreso de Modelación Matemática*, San Salvador, El Salvador, 2016.
 “Optimización de Sistemas Radiológicos Modelando la Detección de Tumores”
 “Modelo Cinético de Reacción Bio-molecular Dependiendo en Difusión y Flujo”
2. *Primer Congreso de Modelación Matemática*, San Salvador, El Salvador, 2014.
 “Reporte de la IMU sobre las Matemáticas en América Latina y el Caribe”
 “Colaboracion entre la Industria y la Matemática Aplicada”
3. *Pi Mu Epsilon Mathematics Conference (Keynote Speaker)*, Sonoma State University, CA, 2014.
 “The Mathematics of Medical Imaging: What is Essential Is Invisible to the Eyes”
4. *Mathematicians and School Mathematics Education: a Pan-American Workshop*, Canada, 2014.
 ”Mathematics in Latin America and the Caribbean: A Report for the IMU”
<http://www.birs.ca/events/2014/5-day-workshops/14w5128/videos/watch/201401300937-Pineda.mp4>
5. *Biomedical Engineering Seminar*, Johns Hopkins University, Baltimore, MD, 2014.
 “Task-Based Optimization in CT and MRI”
6. *MAA SCRU Panel*, Joint Mathematics Meetings, Baltimore, MD, 2014.
 “Directing Undergraduate Research: How to Get Started”
7. *Escuela de Matemática de América Latina y el Caribe (EMALCA)*, Tegucigalpa, Honduras, 2013.
 “Oportunidades de Estudio de Postgrado Para Centroamericanos en EUA y México”.
8. *Meeting of the IMU Committee for Developing Countries*, Berlin, Germany, 2013.
 “Mathematics in Latin America and the Caribbean: Challenges and Opportunities”
9. *Osher Lifelong Learning Institute Spring Science Series*, Fullerton, CA, 2013.
 “Medical Imaging: What is Essential Is Invisible to the Eyes”.
10. *Trends in Undergraduate Research in the Mathematical Sciences*, Rosemont, IL, 2012.
 “Center for Undergraduate Research in Mathematics (CURM) Projects at CSUF”
11. *International Society for Magnetic Resonance in Medicine (ISMRM) Scientific Workshop on Fat-Water Separation: Insights, Applications and Progress in MRI*, Long Beach, CA, 2012.
 “Noise, Cramér-Rao Bound and NSA”.

12. *Matemáticos en la Educación Matemática Escolar: En la búsqueda de impacto en nuestra realidad educacional*, Santiago, Chile, 2012.
“IMU Volunteer Lecturer Program: Math Education as a Tool for International Development”
13. *SACNAS National Meeting*, San Jose, CA, 2011.
Session on Mathematical Modeling as a Collaborative Discipline:
“Statistical Modeling of Chemical Species Separation in Magnetic Resonance Imaging (MRI)”.
14. *Centro de Investigacion en Matematica (CIMAT)*, Guanajuato, Mexico, 2011.
“Cramér-Rao Bounds for Chemical Species Separation in Magnetic Resonance Imaging (MRI)”.
15. *U.S. National Committee for Mathematics*, Irvine, CA, 2010.
Report given to the USNCM on the LMS panel at the ICM and mentoring the first graduate student (Emily Bice) in the Volunteer Lecturer Program in Cambodia.
16. *International Congress of Mathematicians*, Hyderabad, India, 2010.
Panel hosted by the London Mathematical Society (LMS) on Mechanisms for Strengthening Mathematics in Developing Countries.
17. *U.S. National Committee for Mathematics*, MSRI, Berkeley, CA, 2009.
Gave a report to the USNCM on being a Volunteer Lecturer in Cambodia.
18. *American Association of Physicists in Medicine (AAPM) Focused Research Meeting on Model Observers for Tomosynthesis and CT of the Breast*, University of Chicago, Chicago, IL, 2009.
“Spatial and Fourier Analysis of Non-stationarity in 3D Computed Tomography”.

Selected Talks and Panels

1. *Mathematics Colloquium*, Monmouth University, West Long Branch, NJ, 2015.
2. *AMS Fall Western Meeting*, CSU, Fullerton, CA, 2015.
3. *Mathematics Colloquium*, Manhattan College, Riverdale, NY, 2015.
4. *Problem Solving Seminar (Putnam)*, CSU, Fullerton, CA, 2014.
5. *International Congress of Mathematicians*, Seoul, Korea, 2014.
6. *Magnetic Resonance Imaging Seminar*, University of Wisconsin, Madison, WI, 2014.
7. *35th Anniversary of the Applied Mathematics Program*, University of Arizona, Tucson, AZ, 2014.
8. *MBI Workshop on Analysis of Large Collections of Imaging Data*, Columbus, OH, 2014.
9. *Magnetic Resonance Imaging Research Group*, University of California, Los Angeles, CA, 2013.
10. *Medical Imaging Seminar Series*, University of Southern California, 2013.
11. *Mathematical Congress of the Americas*, Guanajuato, Mexico, 2013.
12. *SIAM Conference on Uncertainty Quantification*, Raleigh, NC, 2012.
13. *Mathematics Colloquium*, CSU, Long Beach, CA, 2011.
14. *Problem Solving Seminar (Putnam)*, CSU, Fullerton, CA, 2011.
15. *Graduate Mathematics Seminar*, CSU, Channel Islands, CA, 2011.
16. *Johns Hopkins University Center for Talented Youth*, CSU, Fullerton, CA, 2011.
17. *Problem Solving Seminar (Putnam)*, CSU, Fullerton, CA, 2010.
18. *CNSM Colleagues Colloquium*, Fullerton, CA, 2010.
19. *Image Science for the New X-ray Consortium Meeting*, San Diego, CA, 2010.
20. *Joint Mathematics Meetings*, San Francisco, CA, 2010.
21. *Mathematics Colloquium*, Fullerton College, CA, 2009.
22. *Mathematics Colloquium*, CSU, Fullerton, CA, 2009.
23. *Math Club Meeting*, Cypress College, CA, 2009.
24. *Annual Meeting of the American Association of Physicists in Medicine*, Anaheim, CA, 2009.
25. *Kids to College Presentation*, CSU, Fullerton, CA, 2009.
26. *Exito Universitario: Como Lograrlo en Familia?*, CSU, Fullerton, CA, 2009.
27. *Center for Devices and Radiological Health*, Food and Drug Administration, Rockville, MD, 2009.
28. *Statistics Colloquium*, CSU, Fullerton, CA, 2008.
29. *Mathematics Colloquium*, CSU, Long Beach, CA, 2008.

30. *Kids to College Presentation*, CSU, Fullerton, CA, 2008.
31. *SPIE Medical Imaging Conference*, San Diego, CA, 2008.
32. *Mathematics Colloquium*, Cal Poly, Pomona, CA, 2007.
33. *Mathematics Colloquium*, CSU, Fullerton, CA, 2007.
34. *SIAM Conference on Mathematics for Industry*, Philadelphia, PA, 2007.
35. *Medical Physics Seminar*, UW, Madison, WI, 2007.
36. *Computational and Applied Mathematics Seminar*, UC, Irvine, CA, 2007.
37. *Symposium on Science in the Media*, CSU, Fullerton, CA, 2007.
38. *Magnetic Resonance Engineering Seminar*, USC, Los Angeles, CA, 2007.
39. *Workgroup on Acquisition, Reconstruction and Processing*, UCSF, San Francisco, CA, 2006.
40. *Special Colloquium*, Marquette University, Milwaukee, WI, 2006.
41. *Special Colloquium*, CSU, Fullerton, CA, 2006.
42. *Special Colloquium*, Harvey Mudd College, Claremont, CA, 2006.
43. *Mathematical Adventures and Diversions (MAAD) Seminar*, Lafayette College, Easton, PA, 2005.
44. *Modeling and Computation Seminar*, University of Arizona, Tucson, AZ, 2005.
45. *Radiological Society of North America Meeting*, Chicago, IL, 2004.
46. *Workshop on Inverse Problems and Medical Imaging*, PIMS, Vancouver, CA, 2003.
47. *SPIE Medical Imaging Conference*, San Diego, CA, 2001.
48. *SPIE Medical Imaging Conference*, San Diego, CA, 2000.
49. *Center for Nonlinear Studies*, Los Alamos, NM, 2000.
50. *Centre for Medical Image Computing Seminar*, University College, London, UK, 2000.
51. *Center for Devices and Radiological Health*, Food and Drug Administration, Rockville, MD, 2000.
52. *Center for Nonlinear Studies*, Los Alamos, NM, 1997.
53. *Joint Mathematics Meetings*, San Francisco, CA, 1995.
54. *National Conference on Undergraduate Research*, Salt Lake City, UT, 1993.

External Funding

NSF DMS 1345012 Funding: \$600,146	Role: PI (with S. Annin) <i>MCTP: Graduate Readiness and Access in Mathematics (GRAM)</i> Comprehensive mentoring program to prepare underrepresented math students to be successful in graduate studies.	2014 - 2015
NSF (through CURM at BYU) Funding: \$14,250	Role: PI <i>Separating Chemical Species in Magnetic Resonance Imaging</i> The grant funds research with four undergraduates at CSUF and faculty development as a research mentor.	2010-2011
NIH 1R01CA112163 Total Funding: \$916,164 CSUF Funding: \$92,180	Role: Consortium PI at CSUF <i>Image Science for the New X-ray: Taking NEQ to Task</i> PI: Jeffrey H. Siewerdsen at Johns Hopkins University	2007-2010
GE Healthcare Technologies Funding: \$20,000 Co-PI: William Gearhart	Role: PI <i>Understanding the Mathematics of HYPR-type Algorithms</i> The grant funds the work of students in the Applied Math Project.	Summer 2008

Internal Funding

Manhattan College Funding: 3 Teaching Units Per Year	Pole: PI Faculty Development Plan: <i>Task-Based Optimization of Accelerated Magnetic Resonance Imaging</i>	Fall 2016 - Spring 2019
Manhattan College Funding: \$3000	Pole: PI Summer Research Grant: <i>Statistical Learning in Medical Imaging</i>	Summer 2016
CSU, Fullerton ASC Funding: \$2500 and 3 Teaching Units	Role: PI <i>Task-Based Optimization of MRI</i>	Fall 2014
CSU, Fullerton CNSM Funding: 3 Teaching Units (each)	Role: PI (with S. Annin) <i>Center for Access to Research in Mathematics (CARM)</i> Assigned time to write NSF grant proposal.	Spring 2012
CSU, Fullerton FDC Funding: 3 Teaching Units	Role: PI Faculty Enhancement and Instructional Development (FEID) grant <i>Strengthening the Industrial Connection in the Applied Mathematics Graduate Project</i>	Fall 2011
CSU, Fullerton CNSM Funding: \$4,000	Role: PI <i>Online Course Development for Graduate Course in Probability and Statistics</i>	Summer - Fall 2010
CSU, Fullerton ASC Funding: \$3,000	Role: PI <i>Accelerating Spectroscopic Magnetic Resonance Imaging Using Prior Information</i>	Summer 2010
CSU, Fullerton ASC Funding: \$5,000	Role: PI <i>Level Sets as Prior Information for Reconstruction in Time-Resolved Angiography</i>	Summer 2008

Patents

U.S. Patent #7,176,683 (Co-inventor: Reeder SB)	<i>Iterative Decomposition of Water and Fat with Echo Asymmetry and Least-Squares (IDEAL) Estimation in MRI.</i>
U.S. Patent #7,468,605 (Pelc NJ, Reeder SB, Wen Z, Yu H)	<i>Simultaneous Chemical Species Separation and T2* Measurement Using MRI</i>
U.S. Patent #7,508,211 (Pelc NJ, Reeder SB, Wen Z and Yu H)	<i>IDEAL MRI: Regularized Water-Fat Separation</i>
U.S. Patent #7,592,807 (Yu H, McKenzie CA, Reeder SB)	<i>Maximum Likelihood Estimator in the Presence of Non-Identically Distributed Noise for Decomposition of Chemical Species in MRI</i>

Publications in Peer-Reviewed Journals²

(CSUF graduate students (*Emily K. Bice and Antonio Gonzalez*) in italics)

1. Caceres L, de la Peña JA, **Pineda AR**, Di Prisco C, Solotar, A, “Mathematics in Latin America and the Caribbean: So Much Happening, So Much to Do”, *Notices of the American Mathematical Society*, **61**, 2014, 1052-1055.
2. Kwembe TA, Leonard K, **Pineda AR**, “Academic Year Undergraduate Research: the CURM Model”, *Involve*, **7**, 2014, 383-394.
3. Baek J, **Pineda AR**, Pelc NJ, “To Bin or Not to Bin?, The Effect of CT System Limiting Resolution in Noise and Detectability”, *Physics in Medicine and Biology*, **58**, 2013, 1433-1446.
4. **Pineda AR**, Tward DJ, *Gonzalez A*, Siewerdsen JH “Beyond Noise-Power in 3D Computed Tomography: The Local NPS and Off-Diagonal Elements of the Fourier Covariance Matrix”, *Medical Physics*, **39**, 2012, 3240-3252.
5. Reeder SB, *Bice EK*, Yu H, Hernando D, **Pineda AR**, ”On the Performance of T2* Correction Methods for Quantification of Hepatic Fat Content”, *Magnetic Resonance in Medicine*. **67**, 2012, 389-404.
6. Chebrolu VV, Yu H, **Pineda AR**, McKenzie CA, Brittain JH, Reeder SB, “Noise Analysis for 3-point Chemical Shift based Water-Fat Separation with Spectral Modeling of Fat”, *Journal of Magnetic Resonance Imaging*, **32**, 2010, 493-500.
7. Yoon S, **Pineda AR**, Fahrig R, “Simultaneous Segmentation and Reconstruction: A Level Set Method Approach for Limited View Computed Tomography”, *Medical Physics*, **37**, 2010, 2329-2340.
8. Chebrolu VV, Hines CDG, Yu H, **Pineda AR**, Shimakawa A, McKenzie CA, Samsonov A, Brittain JH, Reeder SB, “Independent Estimation of T2* for Water and Fat for Improved Accuracy of Fat Quantification”, *Magnetic Resonance in Medicine*, **63**, 2010, 849-857.
9. Wen Z, Reeder SB, **Pineda AR**, Pelc NJ, “Noise Considerations of Three-Point Water-Fat Separation Imaging Methods”, *Medical Physics*, **35**, 2008, 3597-3606.
10. Yu H, McKenzie CA, Shimikawa A, Vu AT, Brau ACS, Beatty PJ, **Pineda AR**, Brittain JH, Reeder SB, “Multi-echo Reconstruction for Simultaneous Water-Fat Decomposition and T2* Estimation”, *Journal of Magnetic Resonance Imaging*, **26**, 2007, 1153-1161.
11. Lew CD, **Pineda AR**, Clayton D, Spielman D, Chan F, Bammer R, “SENSE Phase-Constrained Magnitude Reconstruction with Iterative Phase Refinement”, *Magnetic Resonance in Medicine*, **58**, 2007, 910-921.
12. Reeder SB, McKenzie CA, **Pineda AR**, Yu H, Brau AC, Shimakawa A, Hargreaves BA, Gold GE, Brittain JH, “Water-Fat Separation with IDEAL Gradient Echo Imaging”, *Journal of Magnetic Resonance Imaging*, **25**, 2007, 644-652.
13. **Pineda AR**, Barrett HH, Arridge SR, Schweiger M, “Information Content of Data Types in Time-Domain Optical Tomography”, *Journal of the Optical Society of America A*, **23**, 2006, 2989-2996.

²The 53 peer-reviewed journal articles, conference papers, patents and refereed abstracts archived in Google Scholar have been cited 2038 times before January 24, 2017. Eighteen papers have been cited 18 or more times leading to an h-index of 18.

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