

# Ernesto Acosta Reyes' CV

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## EDUCATION

*Ph.D.*, Mathematics. Vanderbilt University, May 2009 (Expected)

- Thesis: Optimal non-linear signal models and stability of sampling-reconstruction.
- Advisor: Professor Akram Aldroubi.

*M.Sc.*, Mathematics. Vanderbilt University, 2006

*M.Sc.*, Mathematics. University of Havana, Cuba, 1999

- Thesis: A formal introduction to Simultaneous Two-Point Padé Approximants.

*B.Sc.*, Mathematics. University of Havana, Cuba, 1997

- Honors thesis: Asymptotic of Orthogonal Polynomials Associated to the Weight  $\exp\{-|x|\}$ .

## AWARDS

- Spring 2004-present: Awarded full stipend and teaching assistantship.
- 2005-2007: Received summer funding from advisor's National Science Foundation grants.
- Summer 2008: Awarded the Summer Research Award by The Graduate School at Vanderbilt University.

## TEACHING EXPERIENCE

Classes taught:

- Spring 2009: *Accelerated Single-Variable Calculus II Math-155B*, teaching assistant for two sections(Recitation Leader and Grader).
- Fall 2008: *Accelerated Single-Variable Calculus II Math-155B*, teaching assistant for two sections(Recitation Leader and Grader).
- Spring 2008: Teaching Assistant for *First Year Accelerated Calculus MATH-155A* and *Differential Equations with Linear Algebra MATH-196* for one section each(Recitation Leader and Grader).
- Fall 2007: *First Year Calculus MATH-150A*, full instructor.
- Spring 2007: *First Year Accelerated Calculus MATH-155B*, teaching assistant for four sections(Recitation Leader and Grader).

- Fall 2006: *First Year Accelerated Calculus MATH-155A*, teaching assistant for four sections(Recitation Leader and Grader).
- Spring 2006: *Differential Equations with Linear Algebra MATH-196*, teaching assistant for one section(Recitation Leader and Grader).
- Fall 2005: *First Year Accelerated Calculus 155B*, teaching assistant for two sections(Recitation Leader and Grader).

## RESEARCH INTERESTS

Sampling Theory, Frame Theory, Applied Harmonic Analysis, Approximation Theory, Signal Image, Compressed Sensing, Operator Theory.

## PUBLICATIONS

- Ernesto Acosta Reyes, Akram Aldroubi, *On the construction of optimal non-linear signal models*, in preparation.
- Ernesto Acosta Reyes, *Iterative Reconstruction and Stability Bounds for Sampling Models*, Submitted.
- Ernesto Acosta-Reyes, Akram Aldroubi, Ilya Krishtal, *On Stability of Sampling-Reconstruction Models*, to appear in Adv. in Comp. Math., 2008.
- Ernesto Acosta Reyes, *Simultaneous two-point Padé approximants*, Rev. Ciencias Matematicas, **18**, No.1, 2000, pp.60-71.

## CONFERENCES ATTENDED

- October 2008: Applied Mathematics and Approximation Theory 2008 Conference, University of Memphis, Memphis, TN.
- August 2007: International Conference of Optics and Photonics (SPIE), San Diego, California.
- May 2006: Current Trends in Harmonic Analysis and Its Applications: Wavelets and Frames, University of Colorado at Boulder.
- November 2004: MGA Workshop V: Math Analysis and Multiscale Geometric Analysis, Institute of Pure and Applied Mathematics (IPAM) at University of California, Los Angeles.
- October 2004: 2004 Fall Southeastern Section Meeting, Special Session on Wavelets, Frames, and Sampling, Vanderbilt University.

## PRESENTATIONS

Conference talks:

- October 2008: *On the construction of optimal non-linear signal models*, AMAT 2008, University of Memphis, TN.

- October 2008: *Iterative Reconstruction and Stability Bounds for Sampling Models*, AMAT 2008, University of Memphis, TN.
- August 2007: *Reconstructing functions in shift-invariant spaces from their average sample values*, International Conference of Optics and Photonics (SPIE), San Diego, California.

Citizenship: Cuba; U.S. Permanent Resident.

Computer Skills: LaTeX, Mathematica.

Languages Spoken: English (proficient), Spanish (native, proficient).

## REFERENCES

Research:

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Research:

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Teaching:

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