

# Norma Ivana Carrizo Molina

## Personal Information

Indooroopilly, 4068, Queensland, Australia  
nivacm@gmail.com, +61-416291585

## Qualifications and Education

- October 2008.  
**PhD in Mathematics** (with distinction). National University of San Luis (UNSL).  
Title of the thesis: *Best Approximation and its Extension to Orlicz Spaces*  
Supervisor: Felipe Zó.  
San Luis, Argentina.
- November 2001.  
**Master in Mathematics** (with distinction). National University of San Luis (UNSL).  
Title of the thesis: *Perturbation of Wavelet and Gabor Frames*  
Supervisor: Sergio Favier.  
San Luis, Argentina.
- July 1997.  
**Bachelor in Mathematics.**  
National University of San Juan. San Juan. Argentina.

## Academic positions

- March 2006 - January 2011.  
**Lecturer (Profesor Adjunto).** Tenured position at the Department of Mathematics of the Faculty of Physical, Mathematical and Natural Sciences. UNSL. On leave from January 2009 to January 2011
- August 2004 - February 2006.  
**Tutorial fellow (Jefe de trabajos Prácticos).** Tenured position, in charge of tutorials, preparing midterms exams, quizzes and offices hours at the Department of Mathematics of the Faculty of Physical, Mathematical and Natural Sciences. UNSL.

## Research positions

- July 2009 - November 2009.  
Researcher of the project: "Eucetifa Zusatzfinanzierung", University of Vienna (Austria).
- March 1999 - March 2010.  
Researcher of the project: "Aproximación de funciones". PROICO 317902. Director: Sergio Favier.  
Institute of Applied Mathematics of San Luis (IMASL) - UNSL.

## Grants and fellowships

- April 2001 - April 2006.  
Fellowship from the National Scientific and Technical Research Council (CONICET), Argentina.  
Purpose: postgraduate research assistant, PhD in Mathematics.
- August 2001 - September 2001.  
Fellowship of the Danish Centre for Applied Mathematics and Mechanics in order to participate in the PhD-Course/Advanced Summer School: *Spline-Based Wavelets, Frames and Applications to PDEs and Images*. Technical University of Denmark.
- March 2000 - March 2001.  
Fellowship from the Secretary of Science and Technology, University of San Luis.  
Purpose: postgraduate research assistant.
- July 1998 - February 2000.  
Fellowship from FOMEC to study the Master in Mathematics. University of San Luis.

## Scientific Publications:

- Ivana Carrizo and Sigrid Heineken, *Minimizers of a Mixed Frame Potential*, Numerical Functional Analysis and Optimization 35: 665-684, 2014.
- Ivana Carrizo, Sergio Favier, and Felipe Zó, *A Characterization of The Extended Best  $\phi$ -Approximation Operator*, Numerical Functional Analysis and Optimization, Vol. 32, 3, (2011). Pages 254-266. ISSN: 1532-2467.
- Ivana Carrizo, Sergio Favier, and Felipe Zó, *Extension of The Best Approximation Operator in Orlicz Spaces*, Abstract and Applied Analysis, Vol. 2008, 15 pages. ISSN: 16870409
- Ivana Carrizo and Sergio Favier, *Perturbation of Wavelet and Gabor Frames*. Analysis in Theory and Applications, Vol. 19, N3, 238-254 (2003). ISSN: 10009221

## Teaching experience

- **Instructor and lecturer.**
  - July 2021-31st of March 2022.  
University of Queensland.  
**Associate Lecturer.** School of Mathematics and Physics, St Lucia Campus, University of Queensland.  
Second Semester 2021:
    - \* **MATH2010. Analysis of Ordinary Differential Equations** (Course Coordinator).
    - \* **MATH1052. Multivariate Calculus and Ordinary Differential Equations** (Half course).
 Summer Course: **MATH1052. Multivariate Calculus and Ordinary Differential Equations** (Half course).
  - July 2019- 6th of March 2020.  
University of Queensland.  
**Associate Lecturer.** School of Mathematics and Physics, St Lucia Campus, University of Queensland.  
Second Semester 2019:
    - \* **MATH2010. Analysis of Ordinary Differential Equations** (Course Coordinator).

- \* **MATH1052. Multivariate Calculus and Ordinary Differential Equations** (Half course).  
Summer Course: **MATH1052. Multivariate Calculus and Ordinary Differential Equations** (Half course).
- September 2014 - January 2015.  
New York University, Courant Institute of Mathematical Sciences.  
**Instructor of Mathematics for Economics 1.**
- April 2013 - September 2013.  
University of Linz (Austria).  
**Lecturer of Mathematics for Chemists 2.**
- March 2006 - December 2008.  
National University of San Luis.  
**Tenured assistant professor, (Profesor Adjunto).**
  - \* First Semester 2008: **Complex Analysis**
  - Second Semester 2008: **Mathematics for Chemists 2**
  - Optative Course: **Convex Functions and Orlicz Spaces**
  - \* First Semester 2007: **Calculus 1**
  - Second Semester 2007: **Basic Mathematics**
  - \* First Semester 2006: **Calculus 1**
  - Second Semester 2006: **Basic Mathematics**
- April 1998 - June 1998.  
University of San Juan.  
**Real Functions II.** Substitute Professor.
- September 1997 - March 1998.  
University of San Juan.  
**Probability and Statistics.** Substitute Professor.
- **Tutoring.**
  - **August 2017 - March 2022**  
University of Queensland. Casual Tutor
    - \* First semester 2021:
      - MATH3401 (**Complex Analysis**)
      - MATH1071 (**Mathematical Analysis**)
      - MATH2400 (**Mathematical Analysis**)
    - \* Second Semester 2020:
      - MATH4405 (**Measure Theory**)
      - MATH1052 (**Multivariate Calculus and Ordinary Differential Equations**)
    - \* First Semester 2020:
      - MATH3401 (**Complex Analysis**)
      - MATH2400 (**Mathematical Analysis**)
    - \* First Semester 2019:
      - MATH3401 (**Complex Analysis**)

- MATH2400 (**Mathematical Analysis**)
- MATH2001 (**Advanced Calculus and Linear Algebra II**)
- MATH1051 (**Calculus and Linear Algebra I**)
- \* Second Semester 2018: MATH4405 (**Measure Theory**)
- \* First Semester 2018: MATH3401 (**Complex Analysis**)
- \* Second Semester 2017: MATH1052 (**Multivariate Calculus and Ordinary Differential Equations**)
- **September 2012 - September 2013.**  
University of Linz. Austria. Tutor
  - \* **Mathematics for Chemists 1.**
  - \* **Mathematics for Chemists 2.**
- **July 1998 - December 2004.**  
National University of San Luis. Super tutor (Jefe de Trabajos Prácticos).
  - \* First Semester 2004: **Calculus 1**  
Second Semester 2004: **Mathematical Analysis**
  - \* First Semester 2003-2002: **Linear Algebra**  
Second Semester 2003-2002: **Multivariate Calculus**
  - \* First Semester 2001-1998: **Discrete Mathematics**  
Second Semester 2001- 1998: **Analysis**

## Organization of conferences

Member of the organizing board of the Harmonic Analysis and Applications, 8 Encuentro Nacional de Analistas A.P. Calderón in Merlo, San Luis, Argentina, 2002 – 2004 – 2006.

## Presentations

- **Posters**
  - **Minimizers of a mixed frame potential.** Conference on Time-Frequency 15. - 20. June 2009 Strobl, Austria
  - **Perturbación de marcos de Wavelet y de Gabor.** Segundo Encuentro Italo-Argentino de Matemática Pura y Aplicada, December 2002, Argentina.
- **Scientific Talks**
  - **Un Teorema de Martingalas.** Presented in the Union Matemática Argentina (UMA) 2005.
  - **Caracterización de Operadores de Mejor Aproximación Extendidos en Espacios de Orlicz.** UMA 2003
  - **Desigualdades Maximales para el Operador de Mejor Aproximación Extendido.** UMA 2002

- **Irregular wavelet frames. A sufficient condition and estimates for the frame bounds.** Workshop: Spline- Based Wavelets, Frames and Applications to PDEs and Images. Danish Center for Applied Mathematics and Mechanics (DCAMM), Technical University of Denmark. 2001
- **Una Condición Necesaria para Marcos de Wavelet Irregular.** UMA 2001
- **Marcos de Wavelet Irregular. Una Condición Suficiente y Estimación para las cotas de Marcos.** UMA 2001
- **Estabilidad de la Madre de Marcos en  $L^2(\mathbb{R})$ .** UMA 1999

## International Visits

- December 2006-January 2007  
Two month stay in Vienna, Austria, with the NUHAG (Numerical and Harmonic Analysis Group). University of Vienna. I participated in the courses
  - Selected Topics in Modern Analysis. Prof. Dr. Hans Feichtinger.
  - Modern Analysis: Time-Frequency Analysis and micro- local Analysis. Prof. Dr. Karlheinz Gröchening.
- August 2001-September 2001  
Two month stay in Copenhagen for a summer course hold at the University of Technology on Wavelet Frames and Gabor Frames, organized by Prof. Ole Christensen.

## Languages

- Spanish (native)
- English (very good command)
- German (good command)

## Contact persons I was working with and which may serve as reference:

- Dr. Felipe Zó.  
Professor Emeritus of University of San Luis, Argentina. E-mail: fzo@unsl.edu.ar
- Dr. Sergio Favier.  
Professor of University of San Luis, Argentina. E-mail: sfavier@unsl.edu.ar