
**Contact
information:**

Departmental Address:
Department of Mathematics
University of Chicago
5734 S. University Ave
Chicago, IL 60637, USA

Office phone: 773-702-4901

Citizenship:

Colombian

Education:

University of Chicago (Chicago, IL, USA).
PhD student in Math. September 2004-present.

University of Michigan (Ann Arbor, MI, USA).
PhD student in Math. September 2003-May 2004.

Universidad de los Andes (Bogotá, Colombia).
M.Sc. in Mathematics, September 2000-December 2002.

Universidad de los Andes (Bogotá, Colombia).
B.S. with Honors, Major: Mathematics. Minor: Computer engineering. September 1996-June 2000.

**Reserach
Interests:**

Representation theory, Algebraic Geometry, Noncommutative Algebra, Combinatorics.

**Publications and
preprints:**

The variety of almost commuting nilpotent matrices. In preparation.

A counterexample to the existence of a Poisson structure on a twisted group algebra, arXiv:math.QA/0608099.

A basis for the non-crossing partition lattice top homology, Journal of Algebraic Combinatorics, Volume 23, Issue 3, May 2006, Pages 231 - 242.

The Manin homomorphism for the elliptic curve. Master thesis.

A basis for the non-crossing partition lattice top homology. Undergraduate Thesis.

Talks:

A Counterexample to the Existence of a Poisson Structure on a Twisted Group Algebra. Representation Theory and related topics Seminar. Northeastern University. October 17, 2008.

Almost commuting nilpotent matrices and Hilbert schemes. Geometry-Algebra-Singularities-Combinatorics Seminar. Northeastern University. October 15, 2008.

Some results on pairs of commuting and almost commuting matrices. Ginzburg student seminar. University of Chicago. October 6, 2008.

A Counterexample to the Existence of a Poisson Structure on a Twisted Group Algebra. XVII Coloquio Latinoamericano de Algebra. Medellín, Colombia. July 23, 2007.

Manin's homomorphism for elliptic curves, Stability Theory Seminar, Universidad de los Andes, Bogotá, Colombia, 2003.

Algebraic Geometry and its applications in Model theory, Mathematical Graduate Seminar, Universidad de los Andes, Bogotá, Colombia, 2001.

A basis for the non-crossing partition lattice top homology, Mathematical Graduate Seminar, Universidad de los Andes, Bogotá, Colombia, 2000.

**Conferences
Attended:**

Workshop on Representation Theory, Geometry and Combinatorics. University of California, Berkeley CA. June 2-6, 2008.

XVII Coloquio Latinoamericano de Algebra. Medellin, Colombia. July 23-27, 2007.

Trends in Noncommutative Geometry. Northwestern University, Evanston IL. May 18-25, 2007.

Midwest Conference on Representation Theory. University of Chicago, Chicago IL. March 17 - 19, 2006.

**Teaching
Experience:**

Lecturer University of Chicago
Autumn 2005–Autumn 2008

Taught the course, wrote and graded the exams.

Spring Quarter, 2009: Mathematical Methods for the Social Sciences-1.

Winter Quarter, 2009: Calculus-3.

Autumn Quarter, 2008: Calculus-2.

Spring Quarter, 2008: Calculus-1.

Winter Quarter, 2008: Calculus-2.

Autumn Quarter, 2007: Calculus-3.

Spring Quarter, 2007: Mathematical Methods for the Social Sciences-2.

Eliana M. Zoque López

Winter Quarter, 2007: Mathematical Methods for the Social Sciences-1.

Autumn Quarter, 2006: Calculus-3.

Spring Quarter, 2006: Elementary functions and Calculus-1.

Winter Quarter, 2005: Elementary functions and Calculus-2.

Autumn Quarter, 2005: Elementary functions and Calculus-3.

College Fellow

University of Chicago

Autumn 2004–Spring 2005

Graded the homework and held office hours and problem sessions.

Spring Quarter, 2005: Basic Complex Variables. Mentor: Sidney Webster.

Winter Quarter, 2005: Honors Calculus 2. Mentor: George Glauberman.

Autumn Quarter, 2004: Logic. Mentor: Denis Hirschfeldt.

Graduate Student Instructor

University of Michigan

Fall 2003–Winter 2004

Taught the course and graded exams and homework.

Winter Term, 2004: Calculus 1. Coordinator: Karen Rhea.

Fall Term, 2003: Data, Functions and Graphs. Coordinator: Pat Shure.

Lecturer

Universidad de los Andes

First Semester 2003

Taught the course and wrote and graded the exams.

First Semester 2003: Numerical Analysis. Coordinator: Ahmed Ould.

Graduate Teaching Assistant

Universidad de los Andes

Second Semester 2000 - Second Semester
2003

Taught the course and wrote and graded the exams.

Second Semester, 2002: Linear Algebra. Coordinator: Leonardo Venegas.

First Semester, 2002: Integral Calculus. Coordinator: Andrei Giniatouline.

First Semester, 2002: Numerical Analysis. Coordinator: Ahmed Ould.

Second Semester, 2001: Numerical Analysis. Coordinator: Ahmed Ould.

First Semester, 2001: Linear Algebra. Coordinator: Leonardo Venegas.

First Semester, 2001: Numerical Analysis. Coordinator: Ahmed Ould.

Second Semester, 2000: Linear Algebra. Coordinator: Leonardo Venegas.

Second Semester, 2000: Numerical Analysis. Coordinator: Ahmed Ould.

Apprentice Teacher

Universidad de los Andes

Second Semester 1999 - First Semester
2000

Taught the course, wrote and graded the exams under the supervision of a coordinator.

First Semester, 2000: Differential Calculus. Coordinator: Margarita Botero de Mesa.
Second Semester, 1999: Linear Algebra. Coordinator: Leonardo Venegas.

**Professional
Experience:**

Coordination Director

Colombian Mathematical Olympiad

XX Iberoamerican Mathematical
Olympiad, Cartagena de Indias, Colombia

September, 2005

Directed the grading team.

International Advisor

Colombian Mathematical Olympiad

VI Centroamerican Mathematical
Olympiad, Managua, Nicaragua

July, 2004

Member of the Advisory Committee to prepare the test.

Research Assistant

Universidad de los Andes

Second Semester, 2002

Model Theory and Algebraic geometry.

**Honors and
Awards:**

B.S. with Honors: Universidad de los Andes(Bogotá, Colombia).

Fellowship: Beca Cuarenta años, Universidad de los Andes, 1996-2000.

Fellowship: Beca de excelencia, Universidad de los Andes, Second semester 1998, First semester 1999.

Gold Medal: II Iberoamerican Mathematical Olympiad for University Students, 1999.

Silver Medal: I Iberoamerican Mathematical Olympiad for University Students, 1998.

Silver Medal: XXXVII International Mathematical Olympiad, Mumbai, India, 1996.

Bronze Medal: XXXVI International Mathematical Olympiad, Toronto, Canada, 1995.

Bronze Medal: XXXV International Mathematical Olympiad, Hong Kong, 1994.

Gold Medal: XI Iberoamerican Mathematical Olympiad, San Jose, Costa Rica, 1996.

Bronze Medal: VIII Iberoamerican Mathematical Olympiad, Mexico City, Mexico, 1993
