

Efren Ruiz

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- Education**
- Ph.D. in Mathematics**, University of Oregon, Eugene, June 2005.
Dissertation, “A Classification Theorem for Direct Limits of Extensions of Circle Algebras by Purely Infinite C^* -algebras.”
Advisor, Professor Huaxin Lin.
 - M.S. in Mathematics**, University of Oregon, Eugene, June 2001.
 - B.S. in Mathematics**, University of Hawaii at Manoa, Oahu, May 1999.
- Academic Positions**
- Postdoctoral Fellow**, Since Summer 2005.
Department of Mathematics, University of Toronto
 - Graduate Teaching Fellow**, Fall 1999 – Spring 2005.
Department of Mathematics, University of Oregon.
 - Instructor**, June 1999 – July 1999
Kauai High and Intermediate School.
- Personal Information**
- Place of Birth**, Philippines.
 - Date of Birth**, April 6, 1976.
 - Citizenship**, United States of America.
- Research Interests**
- Functional analysis, operator theory, operator algebras, C^* -algebras, dynamical systems, and K-theory.
- Publications and Manuscripts**
- [1] *Classification of extensions of classifiable C^* -algebras* (with S. Eilers and G. Restorff). Preprint ArXiv:math.OA/0606688.
 - [2] *C^* -algebras with the stable local finite dimensional property* (with P.W. Ng and Z. Niu). Submitted for publication.
 - [3] *Homomorphisms and strong approximate unitary equivalence*. Submitted for publication.
 - [4] *On Rørdam’s classification of certain C^* -algebras with one non-trivial ideal, II* (with G. Restorff). To appear in *Mathematica Scandinavica*.
 - [5] *A classification theorem for direct limits of extensions of circle algebras by purely infinite C^* -algebras*. To appear in *Journal of Operator Theory*, a preprint version can be seen at ArXiv:math.OA/0508243.

- Awards**
- 2005 D.K. Harrison Award**, University of Oregon. Departmental award granted to the most outstanding graduate student.
- 2004 Anderson Distinguished Teaching Award**, University of Oregon. Departmental award granted to the most outstanding teaching graduate student.
- 1999 Kern-Clark Memorial Award**, University of Hawaii at Manoa. Departmental award granted to the most outstanding undergraduate student.
- Computer Skills**
- Mathematica*, L^AT_EX, HTML, Assembly Language, Pascal.
- Invited Presentations**
- University of Copenhagen, Operator Theory Seminar**
 “A class of C*-algebras with real rank zero, stable rank one, and weakly unperforated K_0 -group” November 1, 2006.
- University of Copenhagen, Operator Theory Seminar**
 “Homomorphisms of C*-algebras and strong approximate unitary equivalence” March 8, 2006.
- The Fields Institute, Set Theory Seminar**
 “C*-algebras and their representations II” November 18, 2005.
- The Fields Institute, Set Theory Seminar**
 “C*-algebras and their representations I” November 11, 2005.
- University of Waterloo, Analysis Seminar**
 “On the classification problem for amenable C*-algebras” October 13, 2005.
- Presentations**
- University of Toronto, Operator Theory Seminar**
 “The automorphism groups of simple C*-algebras” October 16, 2006.
- University of Calgary, Canadian Operator algebra Symposium**
 “Classification of C*-algebras associated to certain shift spaces” May 30, 2006.
- University of Toronto, Operator Theory Seminar**
 “Extensions of AT-algebras by purely infinite C*-algebras” October 3, 2005.
- Joint Mathematics Meetings in Atlanta**
 “Infinite Toeplitz Algebras” January 6, 2005.
- East China Normal University, Operator Theory Seminar**
 “A classification of non-simple C*-algebras” July 12, 2005.
- University of Oregon, Analysis Seminar**
 “A classification result for infinite Toeplitz algebras” November 23, 2004.
 “Automorphisms of Infinite Toeplitz algebras” May 25, 2004.
- University of Oregon Homotopy Seminar**
 “K-Theory,” March 9, 2004.
- Conferences**
- Canadian Operator Algebra Symposium**, May 2006, Calgary, Alberta
- 9th Annual Legacy of R.L. Moore Conference**, May 2006, Austin, TX.
- East Coast Operator Algebra Symposium**, October 2005, Philadelphia, PA.
- AMS/MAA Joint Meetings**, January 2005, Atlanta, GA.
- West Coast Operator Algebra Symposium**, October 2004, Seattle, WA.
- West Coast Operator Algebra Symposium**, October 2003, Banff, Alberta.
- West Coast Operator Algebra Symposium**, October 2002, Boulder, CO.

Teaching Experience

Responsibilities included planning lectures, writing handouts, worksheets, quizzes and exams, supervising graders, determining the grading breakdown for each class, and incorporating the use of the Texas Instrument graphing calculator. Most classes involved the use of graphing calculators. Taught the following:

New Graduate Student Summer Seminar (Instructor: Summer 2004)

Led a three week summer seminar for incoming graduate students. Duties included preparing problems sets, leading group discussions and giving informal instruction in linear algebra, abstract algebra, analysis, and topology.

Single variable Calculus

Differential calculus and integral calculus in one variable taught from a traditional text. Arc length, surface area of solids, infinite sequences and series, Taylor series.

Multivariable Calculus

Differential and integral calculus of functions of several variables. Line and surface integrals, the divergence theorem, Stokes' theorem. Sequences and series, including an introduction to Fourier series. Some partial differential equations of Physics.

Calculus II for Biological Science

Integral calculus, emphasizes modeling and applications to biology.

Business Calculus I

Differential calculus with an emphasis on business applications and an introduction to multivariable calculus.

Business Calculus II

Integral calculus with an emphasis on business applications and an introduction to solving system of linear equation using matrices.

College Algebra

Precalculus class. Covers graph sketching, use of graphing calculators, definition and properties of functions, polynomial and rational functions and introduction to the exponential and logarithmic functions.

Academic Service**Organizer of the Functional Analysis Seminar**, September 2002 – June 2004.

A seminar accessible to graduate students in analysis.

Representative, Graduate Affairs Committee, Spring 2000 – Winter 2001.

Oriented incoming graduate students and represented graduate students in department decisions. Sponsored an approved change to the Graduate Student Handbook.