

## Patricia L. Quattrini

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### Education:

**Degree:** Licenciada en Ciencias Matemáticas. Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Argentina, 10/11/1995.

**PhD:** Doctora de la Universidad de Buenos Aires, área Ciencias Matemáticas. Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Argentina, 14/07/2008.

*Advisor:* Fernando Rodriguez Villegas, University of Texas at Austin, USA.

### Positions:

- August 2010 - : Graduate Teaching Assistant, Math. Department, FCEyN, Universidad de Buenos Aires, Buenos Aires, Argentina.
- March 2010 - July 2010, Assistant Professor, Math. Department, CBC, Universidad de Buenos Aires, Argentina.
- September 2006 - February 2010 : Graduate Teaching Assistant, Math. Department, FCEyN, Universidad de Buenos Aires, Buenos Aires, Argentina.
- August 2004 - August 2006 : Assistant Professor, Math. Department, CBC, Universidad de Buenos Aires, Argentina.
- August 2002 - March 2006 : Graduate Teaching Assistant, Math. Department, FCEyN, Universidad de Buenos Aires, Buenos Aires, Argentina.
- September 2001 - July 2002 : Graduate Teaching Assistant, Computer Science Department, FCEyN, Universidad de Buenos Aires, Buenos Aires, Argentina.
- March 1999 - August 2001 : Graduate Teaching Assistant, Math. Department, FCEyN, Universidad de Buenos Aires, Buenos Aires, Argentina.
- April 1997 - March 1999 : Graduate Teaching Assistant, Math. Department, CBC, Universidad de Buenos Aires, Argentina.
- March 1996 - March 1997 : Graduate Teaching Assistant, Math. Department, FCEyN, Buenos Aires, Argentina.
- March 1996 - July 1997 : Graduate Teaching Assistant, Instituto Tecnológico de Buenos Aires, Buenos Aires, Argentina.
- February 1995 - August 1995 : Professor, Universidad Federal de la Patagonia Austral, Rio Gallegos, Argentina.
- March 1991 - August 1994 : Teaching Assistant, Undergraduate, Mathematics Department, FCEyN, Universidad de Buenos Aires, Argentina.

**Duties and responsibilities:**

Investigation.

Teaching and selection of exercises for students. Making and correcting exams.

Courses taught include various courses in algebra (integers, linear algebra, Galois theory), analysis (real, complex, Fourier), number theory (graduate and undergraduate) and graph theory.

**Visiting Professor:**

- February 2008, Universidad Nacional de La Plata, Argentina. Visiting Professor to give a one week course on cryptography.

**Fellowships:**

- 1998-2001 Doctoral Fellow, FOMEC, Universidad de Buenos Aires, Argentina.

**Visiting Scholar**

- November 2005, University of Texas at Austin, USA.

- February 2002, University of Harvard, Boston, USA.

- November 2000, University of Texas at Austin, USA.

- November 1999, University of Texas at Austin, USA.

**Participation in Talks and Conferences:**

- September 2007, LVII Reunión Anual de la Unión Matemática Argentina, Córdoba, Argentina. Invited Speaker.

*Galois representations and a congruence among modular forms.*

- November 2006, Jornadas de Criptografía y Códigos Autocorrectores, Mar del Plata, Argentina. Exponent.

*Algorithms for elliptic curves over finite fields.*

- August 2006, III Encuentro Nacional de Algebra, Vaquerías, Córdoba, Argentina. Communication. *An heuristics of Cohen and Lenstra applicated to Sha-values.*

- December 2005, Number Theory Seminar, University of Texas at Austin, Austin TX, USA. Exponent.

*On the distribution of analytic Sha values on quadratic twists of elliptic curves.*

- August 2005, XVI Coloquio Latinoamericano de Algebra, Colonia, Uruguay. Conference.

*Elliptic Curves, the Tate-Shafarevich group and modular forms.*

- December 2004, I Encuentro de Teoría de Códigos y Criptografía, FCEyN, Universidad de Buenos Aires, Argentina. Short Communication.

*Elliptic curves and factorization: an algorithm of Lenstra.*

- August 2004, II Encuentro Nacional de Algebra, Vaquerías Córdoba, Argentina. Short Communication.

*Twists of elliptic curves and special values of L-series.*

**Conferences and Schools attended**

- School and Conference on Analytic Number Theory, ICTP, Trieste, Italy. From April 23 to May 11, 2007.

- XIV Coloquio Latinoamericano de Algebra, La Falda, Córdoba, Argentina. From 6 to 10 August, 2001.
- Arithmetic Geometry, MSRI Berkeley, California, USA. From 11 to 15 September, 2000.
- XV Escola de Algebra, Canelas, Brasil. From 26 July to 1 August, 1998.
- XI Coloquio Latinoamericano de Algebra, Mendoza, Argentina. 1994.

**Publications:**

- Patricia Quattrini, *On the Distribution of Analytic  $\sqrt{|\text{III}|}$  Values on Quadratic Twists of Elliptic Curves*, Experimental Mathematics, Vol 15, Issue 3 (2006).
- Patricia Quattrini, *The effect of torsion on the distribution of Sha among quadratic twists of an elliptic curve*, Journal of Number Theory, Elsevier, Volume 131, Issue 2, February 2011, pages 195-211.

**Other:**

- Referee for Experimental Mathematics, 2007.
- Reviewer for MATHEMATICAL REVIEWS (MR), AMS. Since march 2007.

**Reserch Projects:**

Member of the following research projects:

- UBACyT X 056, 08-10. Geometría de espacios de moduli de foliaciones.
- UBACyT X 830, 06-09. Moduli de Foliaciones y Teoría de Cohomología.
- UBACyT X 189, 04-06. Geometría y Topología Algebraica.
- PAV 2003, Aplicaciones e integración interdisciplinaria de la matemática (no 120). Subproyecto: Geometría Algebraica, Teoría de Números y Aplicaciones. Financiado por la Agencia Nacional de Promoción Científica y Tecnológica.
- UBACyT X 198, 2001-2003. Geometría Algebraica Aplicable.
- UBACyT TW 80, 98-00. Cálculo Formal en Geometría Computacional.