CURRICULUM VITAE

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Research Interests

Algebraic Number Theory and Arithmetic Algebraic Geometry:

- canonical and minimal degree liftings of curves and their applications to coding theory;
- arithmetic of elliptic curves and Abelian varieties;
- p-adic and local fields;
- applications to coding theory and cryptography;
- computational aspects.

Appointments

- **Assistant Professor.** University of Tennessee. Since 08/06.
- **Visiting Assistant Professor.** Ohio State University. From 09/04 to 06/06.
- **Visiting Assistant Professor.** University of California, Santa Barbara. From 09/01 to 07/04.
- **Assistant Instructor.** University of Texas at Austin. From 09/00 to 08/01.

Education

- **B.S. (Mathematics)**
  University of São Paulo (Brazil). From 03/91 to 11/94.
- **M.S. (Mathematics)**
  University of São Paulo (Brazil). From 03/95 to 02/97.
- **Ph.D. (Mathematics)**
  University of Texas at Austin. From 09/97 to 08/01. (Advised by J. F. Voloch.)

Financial Supports and Fellowships

- **Scientific Initiation Fellowship:** From 05/93 to 11/94. Funds from FAPESP (Foundation of Support to Research of the State of São Paulo).
- **Master Fellowship:** From 03/95 to 02/97. Funds from FAPESP.
- **Ph.D. Fellowship:** From 09/97 to 08/01. Funds from CAPES (Brazilian government institution).
- **Bruton Fellowship** for the academic year of 2000/2001. Funds from the University of Texas at Austin.

Projects and Dissertations

- **Scientific Initiation Project:** detailed analysis of Gauss's *"Disquisitiones Generales circa Superficies Curvas"*.
- **Master Dissertation:** *"The Absolute Hilbert Class Field of Quadratic Imaginary Extension"*.
- **Ph.D. Thesis:** *"Canonical and Minimal Degree Liftings of Curves."*

Publications

- *"Degrees of the Elliptic Teichmüller Lift"*. *J. Number Theory*, 95:123–141, 2002.
- *"Minimal Degree Liftings of Hyperelliptic Curves"*. *J. Math. Sci. Univ. Tokyo*, 11:1–47, 2004.
- *"Minimal Degree Liftings in Characteristic 2"*. *J. Pure Appl. Algebra*, 207:631–673 2006.
- *"A New Formula For the Supersingular Polynomial"*. Submitted.
- *"Lifting the j-Invariant"*. To be submitted.

Conferences Attended

- **1999 Arizona Winter School:** "Local-to-Global Principles in Arithmetical Algebraic Geometry"
  Presented part of the students project "Application of the method of Coleman and Chabauty."
- **2000 Arizona Winter School:** "Topics in the Arithmetic of Function Fields"
- **Aspects of Algebraic Geometry and Commutative Algebra.** May 18-20, 2000 at Texas A&M University.
- **2001 Arizona Winter School:** "Modular Forms"
- **2002 Arizona Winter School:** "Periods"
- **2003 Arizona Winter School:** "Logic and Number Theory"
- **Third CICMA-CRM Far Hills Workshop:** "L-functions and p-adic cohomology: computational perspectives"
  January 02-04, 2004 in Val-Morin, Quèbec (Canada)
- **Joint Mathematics Meeting.** January 07-10 2004 in Phoenix, AZ.
- **2006 Arizona Winter School:** "Computational and Algorithmic Aspects of Algebra and Arithmetic"
- **Palmetto Number Theory Series I:** December 9-10, at the University of South Carolina
- **2007 Arizona Winter School:** "p-adic Geometry"
- **2008 Arizona Winter School:** "Special Functions and Transcendence"

Talks

- **1997 to 2001:**
  - *University of Texas at Austin:* "Number Theory Seminar" and "Graduate Number Theory Seminar".
  - *University of California Santa Barbara:* "Arithmetic and Geometry Seminar".
- **2002:**
  - *University of California Santa Barbara:* "Arithmetic and Geometry Seminar".
  - *University of Texas at Austin:* "Number Theory Seminar" (as invited speaker)
  - *University of São Paulo* (Brazil)
  - *University of São Paulo and University of São Paulo at São Carlos* (Brazil)
- **2003:**
  - *University of California Santa Barbara:* "Arithmetic and Geometry Seminar".

- *AMS Sectional Meeting* in Boulder, CO. Special session: "Applications of Number Theory and Algebraic Geometry to Coding".

- **2004:**
  - *University of Nebraska Lincoln*
  - *University of Wyoming*
  - *Ohio State University:* "Number Theory Seminar".
- **2005:**
  - *AMS Sectional Meeting* in Santa Barbara, CA. Special session "Arithmetic Geometry".
- **2006:**
  - *University of Tennessee.*
- **2007:**
  - *Junior Colloquium Talk* for undergraduates at the *Univ. of Tennessee:* Applications of Number Theory in Cryptography.
- **2008:**
  - *Palmetto Number Theory Series V*, at Furman University, SC.

Teaching

- **Courses taught at UCSB:**
  - M34A and M34B – Calculus for Social and Life Sciences (2 quarter sequence)
  - M3A, M3B, M3C – Calculus for Engineering and Natural Sciences (3 quarter sequence)
  - M5B – Multivariable Calculus
  - M5H – Honors Calculus
  - M103 – Introduction to Group Theory
  - M116 – Combinatorial Analysis
  - M137A – first quarter of Graph Theory
- **Courses taught at Ohio State University:**
  - Math 151 – Calculus and Analytic Geometry I
  - Math 366, 566 – Discrete Mathematical Structures I and II
  - Math 772 – Graduate Abstract Algebra III (Field Theory)
  - *Ross Program*, as an assistant instructor. (See `http://www.math.ohio-state.edu/ross/`).
- **Courses taught at the University of Tennessee:**
  - Math 251 – Matrix Algebra
  - Math 455, 456 – Abstract Algebra I and II
  - Math 551, 552 – Modern Algebra I and II (Graduate)

Computer Skills

MAGMA, PARI-GP, Sage, Mathematica, LaTeX 2_ε, HTML, PHP, Python, Shell Scripting, Linux.

Personal Data

Born March 30, 1973, in Uberlândia, MG, Brazil.

US Permanent Resident.