

CURRICULUM VITAE

Ekin Özman

Bogazici University
Department of Mathematics
Bebek-Istanbul 34342 Turkey

Education

PhD, Mathematics

University of Wisconsin-Madison, WI 2010

Advisor: Jordan Ellenberg

Thesis Title: Rational Points on Twists of Modular Curves

BS, Mathematics

Middle East Technical University, Ankara, Turkey, 2004

Experience

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|---|----------------------------|--------------|
| ◇ Associate Professor | Bogazici University | 2017-present |
| ◇ Assistant Professor | Bogazici University | 2014-2016 |
| ◇ Postdoctoral Instructor | University of Texas-Austin | 2011-2014 |
| ◇ European Postdoctoral Institutes Lauréate | MPIM, IHES | 2010-2011 |
| ◇ Teaching Assistant | University of Wisconsin | 2005-2010 |

Research

Interest

- ◇ Arithmetic Geometry, Algebraic Number Theory
- ◇ Rational Points on Curves, Brauer-Manin obstruction, Modular Curves
- ◇ Invariants of Curves over Algebraically Closed Fields of Characteristic p

Publications

- ◇ *On the existence of ordinary and almost ordinary Prym varieties*, with R. Pries, to appear in Asian Journal of Mathematics
- ◇ *Non-ordinary curves with a Prym variety of low p -rank*, with TO. Celik, Y. Elias, B. Gunes, R. Newton, R. Pries and L. Thomas, to appear in: Women in Numbers Europe 2, Research Directions in Number Theory, Association for Women in Mathematics Series Vol. 11, Springer, 2018
- ◇ *RLWE Cryptography for the Number Theorist*, with Y. Elias, K. Lauter and K. Stange, Directions in Number Theory, Association for Women in Mathematics Series, Volume 3, Springer, 2016
- ◇ *The distribution of \mathbb{F}_q -Points on cyclic ℓ -Covers of genus g* , with A. Bucur, C. David, B. Feigon, N. Kaplan, M. Lalin and M. Wood, International Math Research Notices, Vol. 2016, No. 14, pp. 42974340,
- ◇ *Provably weak instances of Ring-LWE*, with Y. Elias, K. Lauter and K. Stange, Advances in Cryptology- CRYPTO2015, 63-92, Springer (2015).
- ◇ *Bad reduction of genus-3 curves with complex multiplication*, with I. Bouw, J. Cooley, K. Lauter, E. Garcia, M. Manes, R. Newton, Women in Numbers Europe, Research Directions in Number Theory, Association for Women in Mathematics Series, Volume 2, Springer, 2015
- ◇ *Local - global trace questions*, with M. Ciperiani, Proc. Amer. Math. Soc. 143, 3815-3826, 2015

- Publications Continued**
- ◇ *Unramified Brauer classes on cyclic covers of the projective plane*, with C. Ingalls, A. Obus and B. Viray with an appendix by H. Thomas, Proc. of Brauer groups and obstruction problems, 115-153, Birkhauser, 2016
 - ◇ *On Polyquadratic Twists of $X_0(N)$* , Journal of Number Theory, Volume 133, pp. 3325-3338, 2013
 - ◇ *Newton and Hodge polygons for a variant of the Kloosterman family*, with R. Bellovin, S. Garthwaite, R. Pries, C. Williams and J. Zhu. AMS/CRM Contemp. Math. Women in Numbers 2: Research Directions in Number Theory, Amer. Math. Soc., Providence, RI, 2013
 - ◇ *Points on Quadratic Twists of Modular Curves*, Acta Arithmetica, Volume 152, Number 4, pages 323-348, 2012.
 - ◇ *Semi-direct product Galois covers of curves in characteristic p* , with L.Gruendken, L.Hall-Seelig, B. Im, R. Pries and K. Stevenson, Fields Inst. Commun., 60, Amer. Math. Soc., Providence, RI, 2011.
- Research Projects, Grants**
- ◇ Solving Diophantine Equations: A Modular Approach, Funded by Turkish Scientific Research Council, 370K TL, 2017-2020
 - ◇ Algebraic Curves and Associated Abelian Varieties, Funded by Bogazici University Scientific Research Projects, , 92K TL, 2015-2017
 - ◇ Distribution of Rational Points on Twists of Modular Curves, Funded by Turkish Scientific Research Council, 75K TL, 2014-2016
- Scientific Visits**
- ◇ Max Planck Institute for Mathematics, Bonn, Germany, August 1-31 2014
 - ◇ Colorado State University, Fort Colins, USA, May 3-10, 2014
 - ◇ Colorado State University, Fort Colins, USA, August 1-21, 2013
 - ◇ Colorado State University, Fort Colins, USA, August 3-24, 2012
 - ◇ IHES, Bures-Sures-Yvette, France, June 1-July 31, 2012
 - ◇ CRM, Barcelona, Spain, March 14-21, 2011
- Honors & Awards**
- ◇ Bilim Akademisi Young Scientist Award(BAGEP), 2016
 - ◇ Bogazici University Academic Accomplishment Award, 2016
 - ◇ TUBITAK 2232 Fellowship, 2014
 - ◇ Selected participant of Heidelberg Laureate Forum, 2014
 - ◇ Bing Fellowship in Mathematics, 2012 and 2013 (University of Texas)
 - ◇ AWM-NSF Mentoring Travel Grant, 2013 (given up to 7 women per calendar year)
 - ◇ AWM-NSF Travel Grant, 2011
 - ◇ European Postdoctoral Fellowship, 2010
 - ◇ Elizabeth S. Hirschfelder Scholarship, one of the two women graduate students at UW who are making excellent progress
 - ◇ UW Math Department Best TA award, 2009 towards the PhD, 2009 and 2008
 - ◇ University Housing's Honored Instructor Award, 2008

**Research
Talks As
Invited
Speaker**

- ◇ The Second Romanian-Turkish Mathematics Colloquium, Istanbul, 2017
- ◇ CIMPA-ICTP research school on Artin L-functions, Artin's primitive roots conjecture and applications, Nes'n Mathematics Village, Sirince, 2017
- ◇ Workshop on Arithmetic Aspects of Explicit Moduli Problems, BIRS, Canada, 2017
- ◇ Conference on Arithmetic and Low Dimensional Hyperbolic Spaces, Istanbul, 2016
- ◇ Building Bridges 3rd EU/US Summer School + Workshop on Automorphic Forms and Related Topics, Sarajevo, 2016
- ◇ Antalya Algebra Days, Izmir, Turkey, 2015
- ◇ Workshop on Arithmetic, Geometry, Cryptography and Coding Theory Luminy, CIRM, France, 2015
- ◇ Max Planck Institute for Mathematics, Bonn, Germany, 2014
- ◇ National Mathematics Symposium of Turkey, Istanbul, 2014
- ◇ Colorado State University, Algebraic Geometry Seminar, 2014
- ◇ Workshop on Women in Number Theory, Banff, Canada, 2014
- ◇ SIAM Mini Symp. on Cohomology of Abelian Varieties, Fort Collins, 2013
- ◇ Bogazici University, Colloquium, Istanbul, 2014
- ◇ AMS Special Session on Number Theory and Geometry, San Diego, 2013
- ◇ AWM-JMM Workshop on Number Theory, San Diego, 2013
- ◇ Rice University Algebraic Geometry Seminar, Houston, 2012
- ◇ Semester on Curves, Codes, Cryptography, Special Number Theory Day, Sabanci University, Istanbul, Turkey, 2011
- ◇ Max Planck Institute for Mathematics, Bonn, Germany, 2011
- ◇ Algebra and Number Theory Symposium (in honor of Prof. Dr. Mehpare Bilhan), Middle East Technical University, Ankara, 2010
- ◇ Centre de Recerca Mathematica(CRM), Barcelona, 2010
- ◇ Northwestern University Number Theory Seminar, 2010
- ◇ AMS Special Session on Arithmetic Geometry session, San Francisco, 2010
- ◇ University of Georgia-Athens Number Theory Seminar, 2009

**Synergetic
Activities**

- ◇ **Referee** for Proceedings of the American Mathematical Society, Journal of Number Theory, Math Annalen, Mathematics of Computation, Turkish Journal of Mathematics, Hacettepe Journal of Mathematics and Statistics
- ◇ **Co-editor** of Women in Numbers Europe 2, Research Directions in Number Theory, AWM Series, Volume 11, Springer, 2018 ◇ **Co-organizer** of Women in Numbers Europe 2, Antalya Algebra Days 2017, Fifth Midwest Graduate Students Number Theory Conference
- ◇ **Member** of Association of Women in Mathematics, Association of American Mathematical Society, Turkish Math Society, Women in Numbers Steering Committee
- ◇ **Author** of Matematik Dunyasi(Popular math magazine for high school students, published in Turkish)
- ◇ **Programmer** Magma, Sage

**Teaching
and Outreach
Experience**

◊**Instructor:** Topics in Arithmetic Geometry(Graduate), Projective Geometry, Graduate Algebra I and II, Graduate Algebraic Number Theory, Matrix Theory, Calculus, Group Theory, Rings, Fields and Galois Theory, Elementary Algebraic Geometry, Discrete Mathematics(Bogazici University), Algebraic Structures-I(UT-Austin), Elliptic Curves(Graduate Course) (UT-Austin), Multivariable Calculus(UT-Austin), Differential and Integral Calculus(UT-Austin), Elementary Number Theory(IBL section)(UT-Austin), Intermediate Algebra(UW-Madison)

◊ **Thesis Directed:**

- Kubra Kaytanci(MSc), The Ordinary Component of ℓ -isogeny Graph of Elliptic Curves, 2017
- Ilkiz Bildik, (MSc), Different Versions of the Modularity Theorem, 2017
- 4 ongoing MSc theses.
- 1 ongoing PhD thesis

◊**Directed Study:** Elementary Number Theory(UT-Austin), directed reading course with undergraduates, Class Field Theory(UT-Austin) with graduate students, Rational Points on Elliptic Curves(UT-Austin and Bogazici University) with undergraduates

◊**Teaching Assistant:** (UW-Madison) Calculus of Several Variables,Differential and Integral Calculus and Discrete Math

◊**New International Math Teaching Assistant(ITA) Orientation Coordinator:** (UW-Madison) Summer 2007, 2008, 2009. Observing and giving feedback to new ITAs teaching, organizing activities to help them improve their teaching

◊**Outreach:** ‘*A modest introduction to number theory through Fermat’s last theorem*’, talks given in AWM-student chapter of UT-Austin, Undergraduate Math Club of UT and Bogazici University.

Volunteer Teacher, Elementary and Middle School, Spring 2001-Spring 2005. Giving an answer to ‘Why do we need to know Math?’ using various acting involved games as a member of Educational Funds for Elementary Schools (Ilk Ogretim Okullarina Yardim Vakfi)- Middle East Technical University, Ankara, Turkey.