

# EMRE SERTÖZ

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## PERSONAL INFORMATION

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Born in 15 September 1989 in Ankara, Turkey

## EDUCATION

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<b>Ph.D., Humboldt-Universität zu Berlin/Germany</b>	since 2013
<b>M.Sc., Humboldt-Universität zu Berlin/Germany</b>	2011 - 2013
GPA: 1.0 (German Grading System), converts to 4.0 in the US Grading System	
<b>B.Sc., Bilkent University, Ankara/Turkey</b>	2007 - 2011
GPA: 3.97 (US Grading System)	
<b>IB Diploma, Bilkent University Preparatory School, Ankara/Turkey</b>	2003 - 2007

## DISSERTATION

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<b>Title</b>	Enumerative geometry of theta characteristics (in preparation)
<b>Completion</b>	March 2017 (expected)
<b>Advisor</b>	Gavril Farkas
<b>Co-advisor</b>	Gerard van der Geer
<b>Description</b>	Initiated the study of the moduli of configurations of odd theta characteristics.

## MASTER THESIS

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<b>Title</b>	Hurwitz numbers
<b>Advisor</b>	Gavril Farkas
<b>Description</b>	An exposition into the quasi-modular properties of the generating series of the weighted count of branched covers of curves.

## SCHOLARSHIPS AND AWARDS

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<b>Research fellowship - <i>Space-Time-Matter</i></b>	2016
<b>Scholarship of the International Research Training Group(IRTG) - <i>GRK 1800</i></b>	2013 - 2016
<b>Scholarship of the Berlin Mathematical School (BMS) - <i>Phase I</i></b>	2011 - 2013
<b>Merit Scholarship, Bilkent University - <i>Top 1% - Full Scholarship</i></b>	2008 - 2011
<b>Orhan Alisbah Fellowship Award, Bilkent University</b>	2010
<i>Awarded by the Department of Mathematics of Bilkent to the most successful undergraduate student.</i>	

## PAPERS

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<b>Moduli of curves and multiple roots - <i>www.emresertoz.com/papers</i></b>	in preparation
<b>Enumerative geometry of pairs of theta characteristics</b>	in preparation

## AFFILIATION

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<b>Moduli and Automorphic Forms, GRK 1800</b> <i>International Research Training Group (IRTG)</i>	since 2013
<b>Space-Time-Matter, Analytic and Geometric Structures, SFB 647</b>	since 2013
<b>Berlin Mathematical School, BMS</b>	since 2011

## TALKS

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<b>Enumerative geometry of theta characteristics</b> <i>in IRTG 1800 student conference 2016</i>	September 2016 <i>Leiden/The Netherlands</i>
<b>Berkovich curves</b> <i>in IRTG College Seminar "Berkovich Spaces"</i>	June 2016 <i>Berlin/Germany</i>
<b>Twistor connectivity of the cohomological moduli spaces</b> <i>in Intercity Geometry Seminar "Hodge isometries between K3 surfaces"</i>	April 2016 <i>Leiden/The Netherlands</i>
<b>Enumerative geometry of theta characteristics</b> <i>in Arithmetic and Algebraic Geometry Seminar</i>	March 2016 <i>Amsterdam/The Netherlands</i>
<b>Theta characteristics of an algebraic curve I</b> <i>in IRTG College Seminar "Literature Seminar"</i>	October 2015 <i>Berlin/Germany</i>
<b>Finiteness of isogeny classes</b> <i>in IRTG College Seminar "Faltings' theorem"</i>	June 2015 <i>Berlin/Germany</i>
<b>Cohomology of complex tori</b> <i>in IRTG College Seminar "Abelian varieties and Fourier-Mukai transforms"</i>	October 2014 <i>Berlin/Germany</i>
<b>Hecke operators, Hecke theory and the L-function associated to a cusp form</b> <i>in IRTG College Seminar "Fermat's last theorem"</i>	April 2014 <i>Berlin/Germany</i>
<b>Cohomology of Configuration Spaces - Part II</b> <i>in Topology and Geometry of Configuration Spaces</i>	January 2014 <i>Bedlewo/Poland</i>
<b>Hurwitz numbers</b> <i>in Summer School (Moduli and Automorphic Forms) 2013</i>	September 2013 <i>Joachimsthal/Germany</i>
<b>What is the moduli space of curves?</b> <i>in XV. Antalya Algebra Days</i>	March 2013 <i>Antalya/Turkey</i>
<b>Idea of the moduli space of curves</b> <i>in Bilkent Algebraic Geometry Seminar</i>	March 2013 <i>Ankara/Turkey</i>
<b>In how many ways can you vary a complex curve?</b> <i>in BMS Student Conference 2013</i>	February 2013 <i>Berlin/Germany</i>
<b>The j-invariant</b> <i>in "What is...?" Seminar</i>	January 2013 <i>Berlin/Germany</i>
<b>Schubert cycles</b> <i>in Intersection Theory Seminar</i>	June 2012 <i>Berlin/Germany</i>

## TEACHING

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<b>Intersection Theory</b> <i>Angela Ortega, Humboldt University, Berlin/Germany</i>	Fall 2013 <i>Exercise session tutor</i>
<b>Intersection Theory</b> <i>Jürg Kramer, Humboldt University, Berlin/Germany</i>	Fall 2012 <i>Occasional substitute for the teacher</i>
<b>Multivariable Calculus</b> <i>Sinan Sertöz, Bilkent University, Ankara/Turkey</i>	Fall 2010 <i>Recitation for the honors course</i>

## ATTENDED SEMINARS AND READING GROUPS

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<b>Algebraic Geometry Research Seminar</b> <i>Gavril Farkas</i>	2012-2016 <i>Berlin/Germany</i>
<b>Berkovich Spaces, IRTG College Seminar</b> <i>Benjamin Bakker</i>	Spring 2016 <i>Berlin/Germany</i>
<b>Hodge isometries between K3 surfaces, Intercity Geometry Seminar</b> <i>Lenny Taelmann</i>	Spring 2016 <i>Berlin/Germany</i>
<b>Literature Seminar, IRTG College Seminar</b> <i>Benjamin Bakker</i>	Fall 2015 <i>Berlin/Germany</i>
<b>Deformation theory</b> <i>Michael Kemeny</i>	Fall 2015 <i>Berlin/Germany</i>
<b>Classification of rank-2 vector bundles on threefolds via A1-homotopy</b> <i>Ben Antieau. As part of graduate student bootcamp for AMS Summer Institute.</i>	Summer 2015 <i>Utah/USA</i>
<b>Abelian varieties and Fourier-Mukai transforms, IRTG College Seminar</b> <i>Benjamin Bakker</i>	Spring 2015 <i>Berlin/Germany</i>
<b>Abelian varieties and Fourier-Mukai transforms, IRTG College Seminar</b> <i>Benjamin Bakker</i>	Fall 2014 <i>Berlin/Germany</i>
<b>Algebraic Stacks</b> <i>Fabio Tonini</i>	Fall 2014 <i>Berlin/Germany</i>
<b>Topology and Geometry of Configuration Spaces, Block Seminar</b> <i>Holger Reich, Gavril Farkas</i>	Fall 2014 <i>Bedlewo/Poland</i>
<b>Fermat's last theorem, IRTG College Seminar</b> <i>Zavosh Amir-Khosravi</i>	Spring 2014 <i>Berlin/Germany</i>
<b>Introduction to Stacks</b> <i>Fabio Tonini</i>	Spring 2014 <i>Berlin/Germany</i>
<b>Moduli spaces of algebraic curves, IRTG College Seminar</b> <i>Banafsheh Farang-Hariri</i>	Fall 2013 <i>Berlin/Germany</i>
<b>Complex geometry</b> <i>Reading group organized by me &amp; Gregor Bruns</i>	Fall 2013 <i>Berlin/Germany</i>
<b>Deformation theory of algebras</b> <i>Timo Schürg</i>	Spring 2013 <i>Berlin/Germany</i>

<b>Cohomology in algebraic geometry</b> <i>Reading group organized by me</i>	Summer 2012 <i>Berlin/Germany</i>
<b>Classical algebraic geometry</b> <i>Reading group organized by me</i>	Spring 2012 <i>Berlin/Germany</i>
<b>Intersection Theory Seminar</b> <i>Gavril Farkas</i>	Spring 2012 <i>Berlin/Germany</i>
<b>The Atiyah-Singer Index Theorem</b> <i>Jochen Brüning</i>	Fall 2012 <i>Berlin/Germany</i>

#### ATTENDED COLLOQUIA, CONFERENCES, SYMPOSIA AND WORKSHOPS

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<b>Deformations: classical and modern</b> - <i>Berlin/Germany</i>	Oct 2016
<b>Summer School (Moduli and Automorphic Forms)</b> - <i>Vlieland/The Netherlands</i>	Aug 2016
<b>7th European Congress of Mathematics</b> - <i>Berlin/Germany</i>	Jul 2016
<b>Arakelov theory and automorphic forms</b> - <i>Berlin/Germany</i>	June 2016
<b>A Day of Algebraic and Arithmetic Geometry</b> - <i>Berlin/Germany</i>	May 2016
<b>Summer School 2015 (Moduli and Automorphic Forms)</b> - <i>Siena/Italy</i>	Aug 2015
<b>Geometry of Algebraic Varieties</b> - <i>Berlin/Germany</i>	Oct 2015
<b>AMS Summer Institute</b> - <i>Utah/USA</i>	July 2015
<b>The Graduate Student Bootcamp (for AMS Summer Institute)</b> - <i>Utah/USA</i>	July 2015
<b>GAeL XXIII</b> - <i>Lewven/Belgium</i>	June 2015
<b>Motivic invariants related to K3 and abelian geometries</b> - <i>Berlin/Germany</i>	Feb 2015
<b>Complex Algebraic Geometry</b> - <i>Berlin/Germany</i>	Nov 2014
<b>Summer School 2014 (Moduli and Automorphic Forms)</b> - <i>Budapest/Hungary</i>	Aug 2014
<b>Graduate Workshop on Moduli of Curves</b> - <i>Stony Brook/USA</i>	Jul 2014
<b>North German Algebraic Geometry Seminar 2014</b> - <i>Hamburg/Germany</i>	May 2014
<b>North German Algebraic Geometry Seminar 2013</b> - <i>Berlin/Germany</i>	Nov 2013
<b>Cohomology of the moduli space of curves</b> - <i>Zürich/Switzerland</i>	Oct 2013
<b>KOSMOS Summer University 2013</b> - <i>Berlin/Germany</i>	Oct 2013
<b>Heidelberg Laureate Forum 2013</b> - <i>Heidelberg/Germany</i>	Sep 2013
<b>Summer School 2013 (Moduli and Automorphic Forms)</b> - <i>Joachimsthal/Germany</i>	Sep 2013
<b>İstanbul Summer School in Algebraic Geometry 2013</b> - <i>İstanbul/Turkey</i>	Jun 2013
<b>Workshop “Syzygies in Berlin”</b> - <i>Berlin/Germany</i>	May 2013
<b>XV. Antalya Algebra Days</b> - <i>Şirince/Turkey</i>	Mar 2013
<b>Geometry and Topology of Moduli</b> - <i>Berlin/Germany</i>	Oct 2012

## LANGUAGES

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**Turkish** Native  
**English** Proficient - TOEFL iBT: 117/120  
**German** Upper Intermediate - CEF: B2 Level

## COMPUTER SKILLS

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**CAS** Macaulay2, Mathematica, Maple, MATLAB  
**OS** Linux, Windows  
**Other** L<sup>A</sup>T<sub>E</sub>X, Java

## OTHER ACTIVITIES

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**Student Representative** 2014  
*for the BMS student body* Berlin/Germany

**Mathematical Village of Ali Nesin** Summers of 2009 & 2010  
*Advanced courses* Şirince/Turkey

**Global Game Jam 2009** Feb 2009  
*Middle East Technical University* Ankara/Turkey

- I was the group leader.
- I designed the game and helped with programming.
- Our team was awarded second place.