

Curriculum Vitae

Personal Details

Name	Dr. Philipp Habegger
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Day of birth	July 23, 1978
Nationality	Swiss

Employment History

09/2010 –	Lectureship position for 3 + 1 years at Univ. of Zurich, Switzerland Research, lectures
09/2008 – 08/2010	ETH Fellow, ETH Zurich, Switzerland Host professor: Prof. G. Wüstholtz Research, lectures, teaching assistant duties
09/2007 – 08/2008	Research assistant at D-MATH, ETH Zurich, Switzerland Supervisor: Prof. G. Wüstholtz Teaching assistant duties
10/2003 – 08/2007	Research assistant/PhD student at Dep. of Mathematics, Univ. of Basel, Switzerland Supervisor: Prof. D.W. Masser Teaching assistant duties
04/2001 – 09/2003	Hilfsassistent at Dep. of Mathematics, Univ. of Basel, Switzerland Teaching assistant duties

Research Visits

- 01/2011 – 02/2011 Research stay at the Institute for Advanced Studies, Princeton, USA
- 06/2010 – 07/2010 Research stay at the Scuola Normale Superiore di Pisa, Italy
- 01/2010 – 02/2010 Maître de conférences invité at Univ. Paris-Sud Orsay, France
- June 2009 Research stay at the Scuola Normale Superiore di Pisa, Italy
- 09/2005 – 02/2006 Research stay at Institut de Mathématiques de Jussieu, Paris, France
Supervisor: Prof. S. David

Education

- 10/2003 – 06/2007 PhD in Mathematics at Univ. of Basel, Switzerland
Title: “*Heights and multiplicative relations on algebraic varieties*”
Adviser: Prof. D. W. Masser
Grade: summa cum laude
- 10/2000 – 09/2003 Advanced studies in Mathematics at Univ. of Basel, Switzerland
Degree: Diplom in Mathematik (eqvl. to MSc in Mathematics)
- 10/1998 – 10/2000 Four term basic studies in Mathematics at Univ. of Basel
Degree: Vordiplom in Mathematik (eqvl. to BSc in Mathematics)
- 08/1994 – 12/1997 Matura, Gymnasium Oberwil, Baselland, Switzerland

Talks at Conferences and Meetings

- July 2011 *tba* Invited speaker at Journée Arithmétique 2011
- Apr. 2011 *tba* Invited speaker at “Heights” conference. Tossa del Mar, Spain
- Sep. 8, 2010 “*Some Unlikely Intersections Beyond André-Oort*” Diophantine approximation and transcendence, CIRM Luminy, France
- June 23, 2010 “*Certain Real Analytic Automorphisms of Abelian Varieties and their Periodic Subvarieties*”
Workshop on arithmetic dynamics, Univ. Bordeaux, France (invited)
- Jan. 18, 2010 “*Torsion Points on Fibered Powers of an Elliptic Surface*”
Joint meeting in algebraic geometry Fribourg, Nancy, Strasbourg taking place in Strasbourg, France (invited)
- Aug. 24, 2009 “*Torsion points on certain families of abelian varieties and heights*”
Arithmetic Geometry and Moduli Spaces in Algebraic Geometry, Hangzhou, China (invited)

- July 27, 2009 *“Intersecting varieties with algebraic subgroups”*
New Directions in the Model Theory of Fields, Durham, England (invited)
- Jan. 14, 2009 *“Height upper bounds on abelian varieties and algebraic tori”*
Conference “Complex Geometry” Hanoi National Univ. of Education, Hanoi, Vietnam
- Oct. 24, 2008 *“Height upper bounds on abelian varieties and algebraic tori”*
Workshop on arithmetic geometry: diophantine approximation and Arakelov theory at the Fields Institute, Toronto, Canada (invited)
- Apr. 10, 2008 *“Autour de la « Bounded Height Conjecture »”*
Rencontre ANR “Certains cas (très) particuliers de la conjecture de Zilber-Pink”, Paris, France (invited)
- July 5, 2007 *“A Bogomolov Property Modulo Algebraic Subgroups”*
Journées Arithmétiques, Edinburgh, Scotland (contributed)
- June 5, 2007 *“Factorizing certain trinomials over cyclotomic fields with applications to heights”*, Journée Diophantienne, Univ. Strasbourg, France (invited)
- May 4, 2007 *“Relations on a power of an elliptic curve”*
Workshop: Diophantische Approximationen, Oberwolfach, Germany (invited)
- Dec. 7, 2006 *“Upper and lower bounds for heights”*
Swiss Doctoral Program in Mathematics Graduate Colloquium in Geneva, Switzerland (first prize for best talk)
- Sept. 5, 2006 *“Multiplicative dependence and isolation”*
Approximation diophantienne et nombres transcendants, CIRM Luminy, France (invited)
- Mar. 10, 2006 *“Multiplicative dependence and isolation”*
Diophantine Approximation and Heights Program at ESI in Vienna, Austria (invited)
- July 7, 2005 *“The equation $x + y = \alpha$ in multiplicatively dependent unknowns”*
Diophantine Geometry research period at the Scuola Normale Superiore in Pisa, Italy (invited)

Talks in Seminars and Colloquia

- Oct. 26, 2010 *“Einige Resultate jenseits der André-Oort-Vermutung”* Oberseminar Univ. Muenchen, Germany
- July 5, 2010 *“Special points on elliptic surfaces”*
Seminar Scuola Normale Superiore Pisa, Italy

- June 7, 2010 *“Atypische Punkte auf Varietäten und diophantische Probleme”*
Kolloquium, Univ. Tuebingen, Germany
- May 27, 2010 *“Atypische Punkte und abelsche Varietäten”*
Univ. Frankfurt, Germany
- May 13, 2010 *“Torsion Points on Fibered Powers of an Elliptic Surface”*
Joint seminar logic and number theory, Univ. Oxford, England
- May 6, 2010 *“Commutative and Non-commutative Results in Diophantine Geometry”*
Symposium “New Directions in Mathematics”, Univ. Zurich, Switzerland
- Mar. 25, 2010 *“Points spéciaux sur une puissance fibrée d’une surface elliptique”*
Séminaire de theorie des nombres de Grenoble, France
- Mar. 5, 2010 *“Factorizing certain trinomials over cyclotomic fields with applications to heights”*
Zahlentheoretisches Kolloquium, Univ. Graz, Austria
- Feb. 11, 2010 *“Hauteurs faiblement bornées et courbes modulaires”*
Groupe d’étude sur les problemes diophantiens, Univ. Paris 6, France
- Jan. 14, 2010 *“Torsion Points on Fibered Powers of an Elliptic Surface”*
Groupe d’étude sur les problemes diophantiens, Univ. Paris 6, France
- Jan. 12, 2010 *“Torsion Points on Fibered Powers of an Elliptic Surface”*
Séminaire d’arithmétique et de géométrie algébrique, Univ. Paris-Sud 11, Orsay, France
- Dec. 21, 2009 *“Height upper bounds on abelian varieties and families of abelian varieties”*
Uni Bonn, Germany
- Dec. 14, 2009 *“Distribution of Torsion Points in certain Families of Abelian Varieties”*
Oberseminar Algebraische Geometrie, Univ. Zurich, Switzerland
- Nov. 26, 2009 *“CIT for curves in the algebraic torus”*
Séminaire logique mathématique, Univ. Lyon, France
- Oct. 2, 2009 *“Weakly bounded height and modular curves”*
Séminaire de theorie des nombres Univ. Bordeaux, France
- June 22 & 24, 2009 *“On the Bounded Height Conjecture”*
Seminar Scuola Normale Superiore di Pisa, Italy
- May 7, 2009 *“Towards effective results for points on curves with multiplicative dependent coordinates”*
Oberseminar Algebraic Geometry and Arithmetic, Essen, Germany
- Jan. 19, 2009 *“Points on curves with multiplicatively dependent coordinates”*
Number Theory Seminar, Institute of Mathematics, Hanoi, Vietnam
- Dec. 9, 2008 *“Points on curves with multiplicatively dependent coordinates”*
Forschungsseminar Arithmetische Geometrie, Humboldt Univ. zu Berlin, Germany

- Dec. 4 & 11, 2008 *“Höhenschranken für Untervarietäten vom algebraischen Torus I+II”*
AG Zahlentheorie, Univ. Basel, Switzerland
- Nov. 9, 2007 *“Sous-variétés et sous-groupes algébriques d’une puissance d’une courbe elliptique”*
Séminaire de théorie des nombres de Caen, France
- May 4, 2007 *“Relations on a power of an elliptic curve”*
Number Theory Seminar, ETH Zurich, Switzerland
- Mar. 22, 2007 *“Relations on a power of an elliptic curve”*
Groupe d’étude sur les problèmes diophantiens, Univ. Paris 6, France
- Feb. 8, 2007 *“Relations on a power of an elliptic curve”*
Séminaire de géométrie algébrique, Univ. de Rennes 1, France
- Sept. 5, 2006 *“Multiplicative dependence and isolation”*
Approximation diophantienne et nombres transcendants 4. Sept. - 8. Sept., CIRM Luminy, France
- Feb. 1, 2006 *“A Bogomolov property for curves modulo subgroups of codimension 2”*
Séminaire de théorie des nombres de Grenoble, France
- Nov. 18, 2005 *“Intersecting a variety with algebraic subgroups of multiplicative groups”*
Séminaire de théorie des nombres de Caen, France
- Nov. 10, 2005 *“Intersecting a variety with algebraic subgroups of multiplicative groups II: Finiteness results”*
Groupe d’étude sur les problèmes diophantiens, Univ. Paris 6, France
- Nov. 4, 2005 *“Intersecting a variety with algebraic subgroups of multiplicative groups”*
Séminaire de théorie des nombres Univ. Bordeaux, France
- Oct. 27, 2005 *“Intersecting a variety with algebraic subgroups of multiplicative groups I: Height bounds”*
Groupe d’étude sur les problèmes diophantiens, Univ. Paris 6, France

Minicourses

- May 16-20, 2011 *tba*
Minicourse on the Zilber-Pink Conjecture, CIRM Luminy, France
- Sept. 2-9, 2007 *“Height Bounds in Diophantine Geometry”*
Minicourse for the GRK Summer School 2007 in Alpbach, Austria

Lectures

- 09/2010 – 12/2010 *“Algebraische Zahlentheorie” (Algebraic Number Theory)*
Lecture for bachelor and master students at Univ. Zurich

- 02/2009 – 05/2009 “*Elliptische Kurven*” (*Elliptic Curves*)
Lecture for bachelor and master students at ETH Zurich
- Jan. 2009 “*Elliptic Curves*”
Lecture for master students at the National Univ. of Education, Hanoi, Vietnam
- Oct. 2004 “*Vorkurs Mathematik*” (*Introductory Course on Mathematics*)
One week introductory course for beginning students

Teaching Assistant Experience

- 09/2009 – 12/2009 “*Quadratische Zahlkörper und quadratische Formen*” (*Quadratic Number Fields and Quadratic Forms*) ETH Zurich
Lecturer: Prof. G. Wüstholz
- 02/2009 – 05/2009 “*Elliptische Kurven*” (*Elliptic Curves*) ETH Zurich
Lecturer: Dr. P. Habegger
- 02/2008 – 05/2008 “*Topologie*” (*Topology*) ETH Zurich
Lecturer: Dr. S. Baader
- 09/2007 – 12/2007 “*Einführung in die diophantische Approximation und Transzendenz*” (*Introduction to Diophantine Approximation and Transcendence*) ETH Zurich
Lecturer: Prof. G. Wüstholz
- 03/2007 – 06/2007 “*Topologie*” (*Topology*) Univ. of Basel
Lecturer: Prof. H. Kraft
- 03/2007 – 06/2007 “*Seminar Mechanik*” (*Seminar on Mechanics*) Univ. of Basel
Lecturer: Prof. N. A’Campo
- 10/2006 – 02/2007 “*Einführung in die Wahrscheinlichkeitstheorie und Statistik*” (*Introduction to Probability Theory and Statistics*) Univ. of Basel
Lecturer: Dr. Chr. Luchsinger
- 03/2006 – 06/2006 “*Seminar Zahlentheorie: Höhentheorie*” (*Seminar Number Theory: Height Theory*) Univ. of Basel
Lecturer: Prof. D.W. Masser
- 03/2005– 06/2005 “*Lineare Algebra II*” (*Linear Algebra II*) Univ. of Basel
Lecturer: Prof. H.C. Im Hof
- 10/2004 – 02/2005 “*Lineare Algebra I*” (*Linear Algebra I*) Univ. of Basel
Lecturer: Prof. H.C. Im Hof
- 03/2004 – 06/2004 “*Mathematik für Naturwissenschaftler III*” (*Mathematics for Scientists III*) Univ. of Basel
Lecturer: Prof. A. A’Campo-Neuen

- 10/2003 – 02/2004 “*Seminar Zahlentheorie: Waring’s Problem via the Circle Method*” (*Number Theory Seminar*) Univ. of Basel
Lecturer: Prof. D.W. Masser
- 03/2003 – 06/2003 “*Infinitesimalrechnung II*” (*Analysis II*) Univ. of Basel
Lecturer: Prof. H.C. Im Hof
- 10/2002 – 02/2003 “*Infinitesimalrechnung I*” (*Analysis I*) Univ. of Basel
Lecturer: Prof. H.C. Im Hof
- 03/2002 – 06/2002 “*Statistische Methoden*” (*Statistical Methods*) Univ. of Basel
Lecturer: Dr. E. Luedin
- 10/2001 – 02/2002 “*Mathematik für Naturwissenschaftler I*” (*Mathematics for Scientists I*)
Univ. of Basel
Lecturer: Dr. H. Walser
- 03/2001 – 06/2001 “*Mathematik für Naturwissenschaftler II*” (*Mathematics for Scientists II*)
Univ. of Basel
Lecturer: Prof. H. Kraft

Co-supervision of Theses

- 2008 Co-supervisor with Prof. G. Wüstholz for Lars Kühne’s Master’s Thesis
“The André-Oort Conjecture in \mathbf{C}^2 ”
- 2008 Co-supervisor with Prof. G. Wüstholz for Lars Kühne’s Bachelor’s Thesis
“Shimura varieties and the André-Oort-Conjecture”

Grants and Awards

- Nov. 2008 Prize of the Faculty of Natural Sciences at the Univ. of Basel for my PhD Thesis
- Sept. 2008 Two year ETH Fellowship research grant for Postdoc researchers
- Sept. 2008 Co-proposer, together with Dr. C. Fuchs and Prof. G. Wüstholz, of the SNF Research Module within the ProDoc grant “Arithmetic and Geometry”
- July 2007 One year fellowship for prospective researchers from the Swiss National Science Foundation

Refereeing for Journals

Journal de Théorie des Nombres de Bordeaux

Mathematische Annalen
Algebra & Number Theory

Computer and Language Skills

Computer Skills Several years of programming experience in C and C++
 Programming experience with MFC, SQL databases
 Experience with the programs of the Microsoft product family (MS Word,
 MS Excel) and with Unix

Language Skills German (native), English (native), French (fluent)

Special Experience

01/2007 – 08/2007 Member of the organizing committee of the biannual Colloquium of
 the Swiss Doctoral Program in Mathematics in Basel May 29-30, 2007