

# Philipp Hieronymi

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## Positions

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<b>Assistant Professor</b> <i>University of Illinois at Urbana-Champaign</i>	since 2012
<b>JL Doob Research Assistant Professor</b> <i>University of Illinois at Urbana-Champaign</i> Supervisor: Lou van den Dries	2010–2012
<b>German Academic Exchange Service Postdoctoral Scholar</b> <i>Fields Institute and McMaster University</i> Supervisor: Patrick Speissegger	2009

## Education

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<b>Doctor of Philosophy in Mathematics</b> <i>University of Oxford, UK</i> Supervisor: Alex Wilkie	2005–2008
<b>Diplom in Mathematics with a minor in Computer Science</b> <i>University of Bonn, Germany</i> Supervisor: Peter Koepke	2000–2006
<b>Master of Advanced Study in Mathematics ('Part III')</b> <i>University of Cambridge, UK</i> Supervisor: Peter Johnstone	2003–2004
<b>Bachelor of Science in Economics</b> <i>University of Bonn, Germany</i>	2002–2008

## Grants

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<b>National Science Foundation Grant</b> <i>DMS-1300402 (\$140,225)</i>	2013–2016
<b>UIUC Campus Research Board Award</b> <i>(\$10,418)</i>	2014
<b>UIUC Campus Research Board Award</b> <i>(\$13,370)</i>	2013
<b>German Academic Exchange Service Postdoctoral Scholarship</b> <i>(\$37000)</i>	2009

## Scholarships, Prizes & honors

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<b>Evelyn Nelson Lecture 2015-16</b> <i>McMaster University, Canada</i> named lecture series focused on matters relating to the Foundations of Mathematics	2015
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<b>N. Tenney Peck Teaching Award in Mathematics</b>	2015
<i>University of Illinois at Urbana-Champaign, USA</i>	
given to tenure-track faculty for exemplary teaching	
<b>Back2Fields Colloquium</b>	2012
<i>Fields Institute, Canada</i>	
colloquium series to 'celebrate the accomplishments of former postdoctoral fellows of Fields Institute thematic programs'	
<b>Merton College Prize Scholarship</b>	2007–2008
<i>University of Oxford, UK</i>	
awarded to 'the graduate students at Merton who are of the highest distinction'	
<b>Predocctoral Scholarship</b>	2006–2008
<i>German Academic Exchange Service (DAAD)</i>	
Predocctoral scholarship for graduate studies at the University of Oxford	
<b>Predocctoral Scholarship</b>	2005–2008
<i>Engineering and Physical Science Research Council, UK</i>	
<b>Rosalind Lady Carlisle Scholarship</b>	2004
<i>Girton College, University of Cambridge</i>	
<b>May Smithels Prize</b>	2004
<i>Girton College, University of Cambridge</i>	
awarded for 'distinction in Part III of the Mathematical Tripos at Cambridge'	
<b>Hölderlin Scholarship</b>	2003-2004
<i>Allianz Lebensversicherung AG, Germany</i>	
Scholarship for graduate studies at the University of Cambridge	
<b>Scholarship of the German National Academic Foundation</b>	2000-2005
<i>(Studienstiftung des deutschen Volkes)</i>	
awarded to the top 0.25 per cent of German students	
<b>Bookprice of the German Physical Society</b>	2000

## Publications

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### Mathematics

- [1] **Defining the set of integers in expansions of the real field by a closed discrete set**  
Proc. Amer. Math. Soc. 138 (2010) 2163-2168
- [2] **Dependent pairs**  
with A. Günaydin, J. Symb. Logic (2) 76 (2011) 377-390
- [3] **The real field with the rational points of an elliptic curve**  
with A. Günaydin, Fund. Math. 211 (2011) 15-40
- [4] **The real field with an irrational power function and a dense multiplicative subgroup**  
J. London Math. Soc. (2) 83 (2011) 153-167
- [5] **Expansions of subfields of the real field by a discrete set**  
Fund. Math. 215 (2011) 167-175
- [6] **Expansions which introduce no new open sets**  
with G. Boxall, J. Symb. Logic (1) 77 (2012) 111-121

- [7] **A dichotomy for expansions of the real field**  
with A. Fornasiero and C. Miller, *Proc. Amer. Math. Soc.* 141 (2013) 697-698
- [8] **An analogue of the Baire Category Theorem**  
*J. Symb. Logic* (1) 78 (2013) 207-213
- [9] **Interpreting the projective hierarchy in expansions of the real line**  
with M. Tychonievich, *Proc. Amer. Math. Soc.* 142 (2014) 3259-3267
- [10] **A fundamental dichotomy for definably complete expansions of ordered fields**  
with A. Fornasiero, *J. Symb. Logic* to appear (2014)
- [11] **Expansions of the ordered additive group of real numbers by two discrete subgroups**  
*J. Symb. Logic* to appear (2015)
- [12] **Ostrowski numeration systems, addition and finite automata**  
with A. Terry Jr., *Notre Dame J. Formal Logic* to appear (2015)
- [13] **A tame Cantor set**  
*J. European Math. Soc.* to appear (2015)
- [14] **When is scalar multiplication decidable?**  
*submitted*
- [15] **Metric dimensions and tameness in expansions of the real field**  
with C. Miller, *submitted*
- [16] **Structure theorems in tame expansions of o-minimal structures by a dense set**  
with P. Eleftheriou and A. Günaydin, *submitted*
- [17] **Distal and non-distal pairs**  
with T. Nell, *submitted*
- [18] **Interpreting the monadic second order theory of one successor in expansions of the real line**  
with E. Walsberg, *submitted*

### Economics

- [1] **The Clean-Development Mechanism, stochastic permit prices and energy investments**  
with D. Schüller, *Energy Economics* 47 (2015) 25–36
- [2] **The Influence of Permit Price Uncertainty and Lobbying on Energy Investments**  
with D. Schüller, in *'Emissions Trading as a Policy Instrument: Evaluation and Prospects'*,  
*CESifo Seminar Series, MIT Press* (2015) 87-120

### Talks

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<b>Colloquium Logicum 2016</b> <i>University of Hamburg, Hamburg, Germany</i>	<b>September 2016</b>
<b>Workshop on Model Theory: From Fields to Hardy Fields</b> <i>Fields Institute, Toronto, Canada</i>	<b>August 2016</b>
<b>Summer School in Tame Geometry</b> <i>University of Konstanz, Konstanz, Germany</i>	<b>July 2016</b>
<b>Ohio State University</b> <i>Logic Seminar, Columbus, Ohio</i>	<b>March 2016</b>

<b>University of Illinois at Chicago</b> <i>Logic Seminar, Chicago, Illinois</i>	March 2016
<b>McMaster University</b> <i>The Evelyn Nelson Lecture, Hamilton, Ontario</i>	December 2015
<b>McMaster University</b> <i>Logic Seminar, Hamilton, Ontario</i>	December 2015
<b>City University of New York</b> <i>Logic Workshop, New York, NY</i>	November 2015
<b>Future directions in model theory and analytic functions</b> <i>Manchester, UK</i>	July 2015
<b>University of Konstanz</b> <i>Model Theory Seminar, Konstanz, Germany</i>	June 2015
<b>Ohio State University</b> <i>Logic Seminar, Columbus, Ohio</i>	May 2015
<b>University of Wisconsin</b> <i>Southern Wisconsin Logic Colloquium, Madison, Wisconsin</i>	April 2015
<b>University of Münster</b> <i>Colloquium, Münster, Germany</i>	March 2015
<b>Canadian Mathematical Society Winter Meeting</b> <i>Model Theory Special session, Hamilton, Ontario</i>	December 2014
<b>Eastern Illinois University</b> <i>Colloquium, Charleston, Illinois</i>	November 2014
<b>University of Illinois at Chicago</b> <i>Logic Seminar, Chicago, Illinois</i>	March 2014
<b>University of California at Los Angeles</b> <i>Logic Colloquium, Los Angeles, California</i>	January 2014
<b>University of Notre Dame</b> <i>Logic Seminar, South Bend, Indiana</i>	November 2013
<b>Applications of O-Minimality Workshop</b> <i>Passau, Germany</i>	September 2013
<b>ASL Annual Meeting</b> <i>Model Theory Special session, Waterloo, Ontario</i>	May 2013
<b>ASL Winter Meeting</b> <i>Plenary talk, San Diego, California</i>	January 2013
<b>Fields Institute</b> <i>Back 2 Fields Colloquium, Toronto, Ontario</i>	October 2012
<b>McMaster University</b> <i>Logic Seminar, Hamilton, Ontario</i>	October 2012
<b>Western Illinois University</b> <i>Colloquium, Macomb, Illinois</i>	October 2012

<b>University of Konstanz</b> <i>Oberseminar, Konstanz, Germany</i>	May 2012
<b>University of Illinois</b> <i>Colloquium, Urbana, Illinois</i>	January 2012
<b>MidWest Model Theory Day</b> <i>Chicago, Illinois</i>	October 2011
<b>O-minimal Structures and Real Analytic Geom. Workshop</b> <i>Fields Institute, Toronto, Canada</i>	August 2011
<b>University of Münster</b> <i>Oberseminar, Münster, Germany</i>	June 2011
<b>MidWest Model Theory Meeting</b> <i>Columbus, Ohio</i>	May 2011
<b>Ohio State University</b> <i>Logic Seminar, Columbus, Ohio</i>	May 2011
<b>University of Notre Dame</b> <i>Colloquium, South Bend, Indiana</i>	February 2011
<b>University of Notre Dame</b> <i>Logic Seminar, South Bend, Indiana</i>	February 2011
<b>University of Wisconsin</b> <i>Logic Seminar, Madison, Wisconsin</i>	December 2010
<b>Logic Colloquium 2010</b> <i>Model Theory Special session, Paris, France</i>	July 2010
<b>University of Freiburg</b> <i>Oberseminar, Freiburg, Germany</i>	July 2010
<b>Ohio State University</b> <i>Logic Seminar, Columbus, Ohio</i>	April 2010
<b>MidWest Model Theory Meeting</b> <i>Urbana, Illinois</i>	November 2009
<b>ESF Research Conference in Model Theory</b> <i>Bedlewo, Poland</i>	August 2009
<b>Logicum Urbanae Lugduni</b> <i>Lyon, France</i>	July 2009
<b>Fields Institute</b> <i>Geometry and Model Theory Seminar, Toronto, Ontario</i>	May 2009
<b>University of Manchester</b> <i>Logic Seminar, Manchester, UK</i>	November 2008
<b>University of Oxford</b> <i>Logic Seminar, Oxford, UK</i>	May 2008
<b>MODNET Research Workshop</b> <i>Berlin, Germany</i>	September 2007

**University of Amsterdam**

**April 2006**

*Colloquium on Mathematical Logic, Amsterdam, Netherlands*

## Advising

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**Travis Nell**

**since 2014**

*PhD student, Prelim passed August 2015*

**Erin Caulfield**

**since 2013**

*PhD student, Prelim passed December 2014*

**Alonza Terry Jr.**

**since 2013**

*Master student*

**Nathan Rehfuss**

**2013-2014**

*Master student*

**Pete Glaze**

**2010-2011**

*Master student*

## Teaching Experience

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**University of Illinois:** Lecturer

- Appl. Linear Algebra (Math 415, 2 × 200 Students, Fall 2015 \*)
  - Appl. Linear Algebra (Math 415, 2 × 200 Students, Fall 2014 \*)
  - Appl. Linear Algebra (Math 415, 215 Students, Spring 2014, \*)
  - Appl. Linear Algebra (Math 415, 200 Students, Fall 2013, \*)
  - O-minimal structures (Math 595, 8 Students, Fall 2013, \*)
  - Mathematical Logic (Math 414, 18 Students, Spring 2013)
  - Mathematical Logic (Math 570, 17 Students, Fall 2013, \*)
  - Intro Matrix Theory (Math 225, 200 Students, Spring 2012, \*)
  - Mathematical Logic (Math 414, 17 Students, Spring 2012, \*)
  - Fundamental Math. (Math 347, 25 Students, Fall 2011, \*)
  - Intro Matrix Theory (Math 225, 200 Students, Spring 2011)
  - Mathematical Logic (Math 414, 12 Students, Spring 2011)
  - Differential Equations (Math 285, 60 Students, Fall 2010)
- (\*) indicates appearance on the 'List of teachers ranked as excellent by their students')

**Merton College, University of Oxford:** Tutor

- Undergraduate course in Logic (2007)

**University of Oxford:** Teaching Assistant

- Undergraduate course in Logic (2006)

**University of Bonn:** Teaching Assistant

- Undergraduate courses in Algebra and Logic 2004–2005
- Undergraduate courses in Linear Algebra 2002–2003

## Service

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**Refereeing:**

- Referee for the following journals: Annals of Pure and Applied Logic, Archive of Mathematical Logic, Fundamenta Mathematicae, Journal of Symbolic Logic, Mathematical Logic Quarterly, Notre Dame Journal of Formal Logic

- Panelist for the National Science Foundation
- Reviewer for the German Academic Exchange Service

**Organizing:**

- Member of the Organizing and Program Committee of the North American Meeting of the Association of Symbolic Logic
- Organizer of the Special Session in Model Theory for the 2014 North American Meeting of the Association of Symbolic Logic

**Outreach:** Organizer of the following outreach events:

- Gardner 100 - Gathering for Gardner 2014 at Urbana-Champaign
- G4G - Gathering for Gardner 2012 at Urbana-Champaign
- G4G - Gathering for Gardner 2011 at Urbana-Champaign

**Governance:** Member of the Council of the Faculty for Mathematics and Science of University of Bonn (2003)