

Employment

- **Northwestern University**
Boas Assistant Professor (2007–2010)
- **Institut des Hautes Etudes Scientifiques (IHES)**
Postdoctoral fellow (2006–2007)

Education

- **Harvard University** (2001–2006)
Ph.D., June 2006
Advisor: Richard Taylor
- **Cambridge University (Gonville & Caius College)** (1997–2001)
Certificate of Advanced Study in Mathematics (Part III),
with Distinction, June 2001
B.A., Mathematics, June 2000

**Research
Interests**

Generalizations of Serre's Conjecture, mod p and p -adic Langlands correspondences, Galois representations, automorphic forms, p -adic Hodge theory

Publications

- *The classification of irreducible admissible mod p representations of a p -adic GL_n ;*
Preprint (2009), 40 pages.
- *Weight cycling and Serre-type conjectures for unitary groups,*
with M. Emerton and T. Gee;
In preparation.
- *A Satake isomorphism in characteristic p ;*
Submitted to Compositio (2009), 24 pages.
- *Conjecture de type de Serre et formes compagnons pour GSp_4 ,*
with J. Tilouine;
Submitted to Crelle (2008), 38 pages.
- *The weight in a Serre-type conjecture for tame n -dimensional Galois representations;*
Duke Math. Journal **149** (2009), no. 1, 37–116

Papers available at <http://math.northwestern.edu/~herzig/>.

**Grants
& Awards**

- **NSF Grant DMS-0902044 (2009–2012)**
Serre-type conjectures and mod p Langlands correspondences, \$90,549
- **Clay Liftoff Fellowship (2006)**
- **International Mathematical Olympiad (1994–1997)**
Received bronze medal (1995), silver medal (1996), gold medal (1997).

Visits

- **UCLA**
Visitor (May/June 2009), 1 month
- **Université Paris 7 – Denis Diderot**
Maître de conférences invité (July 2008), 1 month
- **Max-Planck-Institut für Mathematik, Bonn**
Guest (July/August 2006), 1 month

Teaching

Northwestern University

- Math 230 (Multivariable Calculus), Spring 2010
- Math 470-3 (Graduate Algebra III), Spring 2010
- Math 220 (Single Variable Calculus I), Fall 2009
- Math 470-1 (Graduate Algebra I), Fall 2009
- Math 224 (Single Variable Calculus II), Winter 2009
- Math 330-2 (Abstract Algebra II), Winter 2009
- Math 220 (Single Variable Calculus I), Fall 2008
- Math 330-1 (Abstract Algebra I), Fall 2008
- Math 224 (Single Variable Calculus II), 2 sections, Winter 2008
- Math 220 (Single Variable Calculus I), 2 sections, Fall 2007

Harvard University

- QR 28 (“The Magic of Numbers”), Head Teaching Fellow, Fall 2005;
Awarded the *Certificate of Distinction in Teaching* by the Derek Bok Center, based on student evaluations.
- QR 28 (“The Magic of Numbers”), Course Assistant, Spring 2005;
Awarded the *Certificate of Distinction in Teaching* by the Derek Bok Center, based on student evaluations.
- Math 1b (Single Variable Calculus II), Teaching Fellow, Fall 2003
- Math 1a (Single Variable Calculus I), Teaching Fellow, Fall 2002
- Qualls Tutor, Fall 2003–Spring 2006; Assisting first-year graduate students in preparing for the written qualifying exams.

Advising

- Peter Martin (senior thesis), Northwestern, 2008–2009

Service

- **Organizer**, Northwestern Number Theory Seminar (2008–present)
- **Putnam training sessions**, Northwestern (2007–present)
- **Referee**, for American Journal of Mathematics, Bulletin of the London Mathematical Society, Compositio Mathematica, Duke Mathematical Journal, Journal für die reine und angewandte Mathematik (Crelle).

- Invited Talks (Conferences)**
- Galois Trimester, IHP (Paris), January 2010 (*three talks*)
 - Workshop on Number Theory and Related Topics; Taipei (Taiwan), July 2009
 - Formes Modulaires, Théorie de Hodge p -adique et Applications; Roscoff (France), July 2009
 - Minerva School on p -adic Methods in Arithmetic Algebraic Geometry; Jerusalem (Israel), March/April 2009
 - Workshop on Shimura Varieties, Automorphic Representations and Related Topics; Kyoto (Japan), November 2008 (*two talks*)
 - p -adic Representations of p -adic Groups; Paris (France), July 2008 (*joint mini-course with Matthew Emerton plus a research talk*)
 - Instructional Conference on Representation Theory and Arithmetic; Northwestern, May 2008 (*expository talk*)
 - Recent Developments in Number Theory; UCLA, March 2008
 - Summer School on Serre's Modularity Conjecture; Luminy (France), July 2007 (*expository talk*)
 - First Joint International Meeting between the AMS and the Polish Mathematical Society; Warsaw (Poland), July/August 2007
 - Lie Theory, Geometry and Representations Conference (Journées Solstice d'Été); Paris (France), June 2007

- Invited Talks (Seminars)**
- Caltech Number Theory Seminar, February 2010
 - Michigan Group Theory/Lie Theory/Number Theory Seminar, February 2010
 - Maryland Representation Theory Seminar, November 2009
 - UCLA Number Theory Seminar, May 2009
 - Purdue Automorphic Forms Seminar, May 2009
 - McMaster Arithmetic Geometry Seminar, April 2009
 - Toronto Number Theory/Representation Theory Seminar, April 2009
 - Québec–Vermont Number Theory Seminar at McGill, March 2009
 - Princeton/IAS Number Theory Seminar, November 2008
 - Harvard Number Theory Seminar, September 2008
 - UIC Number Theory/Arithmetic Geometry Seminar, February 2008
 - Séminaire Arithmétique et Géométrie Algébrique, Paris 11, June 2007
 - IHES (Paris), June 2007
 - Joint ENS–IHES Study Group on Generalizations of Serre's Conjecture (Paris), *Modularity lifting theorems* (2 hours), April 2007

- Cambridge University Number Theory Seminar, February 2007
- Séminaire Arithmétique et Géométrie Algébrique, Strasbourg, January 2007
- Joint ENS–IHES Study Group on Generalizations of Serre’s Conjecture (Paris), *Some global examples* (3 hours), January 2007
- Essen Oberseminar, December 2006
- Bielefeld Oberseminar Algebra und Geometrie, December 2006
- Joint London–Paris Number Theory Seminar, IHP (Paris), November 2006
- Ohio State Arithmetic Geometry Seminar, June 2006
- Boston College Number Theory Seminar, May 2006
- Michigan Arithmetic Seminar, January 2006
- Northwestern Special Seminar, January 2006
- Brandeis Fellowship of the Ring Seminar, November 2005
- Harvard Number Theory Seminar, April 2005
- Richard Taylor’s Seminar at Harvard, *Modular Representations of Chevalley Groups*, April–May 2005 (a series of eight one-hour talks)

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Personal

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