

# **CURRICULUM VITAE FOR MATTHEW BAKER**

## **October 2016**

School of Mathematics  
Georgia Institute of Technology  
Atlanta, GA 30332-0160, USA  
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### **POSITIONS HELD:**

- Georgia Institute of Technology (Fall 2011 – Present) Professor
- University of California Berkeley (Fall 2011 – Spring 2012) Professor
- Georgia Institute of Technology (Fall 2007 – Present) Associate Professor
- Georgia Institute of Technology (Fall 2004 – Summer 2007) Assistant Professor
- University of Georgia (Fall 2002 – Summer 2004) Assistant Professor
- University of Paris 7 (Summer 2003) Visiting Professor
- Harvard University (Fall 2000 – Summer 2002) Benjamin Peirce Assistant Professor
- Harvard University (Fall 1999 – Summer 2000) NSF Postdoctoral Fellow

### **EDUCATION:**

- Ph. D., Mathematics, University of California at Berkeley (1999)
- B. S., Mathematics, University of Maryland at College Park (1994),  
summa cum laude with highest honors

### **DISSERTATION:**

- Torsion Points on Modular Curves (Advisor: Robert Coleman)

### **RESEARCH GRANTS:**

- NSF Research Grant DMS-1529573 (2015–2018)
- NSF Research Grant DMS-1201473 (2012–2015)
- NSF Research Grant DMS-0901487 (2009 – 2012)
- NSF Research Grant DMS-0600027 (2006 – 2009)
- NSF Research Grant DMS-0300784, joint with Robert Rumely (2003 – 2006)

### **HONORS, AWARDS, AND FELLOWSHIPS:**

- Fellow of the American Mathematical Society (2012 – Present)
- University System of Georgia Board of Regents Teaching Excellence Award (2010)
- Georgia Tech CETL/BP Junior Faculty Teaching Award (2007)
- Georgia Tech Class of 1969 Teaching Fellowship (2004)
- NSF Postdoctoral Research Fellowship (1999 – 2003)
- Alfred P. Sloan Dissertation Fellowship (1998 – 1999)
- Simons Foundation Award for Excellence in Mathematics (1997)
- Department of Defense NDSEG Graduate Fellowship (1995 – 1998)

### **SELECTED PROFESSIONAL SERVICE:**

- Co-organizer (with Sam Payne) of Simons Symposium on Tropical and Non-Archimedean Geometry in Krün, Germany (May 2017, forthcoming)
- Co-organizer (with Sam Payne) of MSRI Summer School on Chip Firing and Tropical Curves (July–August 2016)

- Co-organizer (with David Jensen and Sam Payne) of BIRS workshop on Algebraic, Tropical, and Nonarchimedean Analytic Geometry of Moduli Spaces, Oaxaca, Mexico (May 2016)
- Co-organizer (with Joe Silverman) of AMS Special Session on Arithmetic Dynamics at the AMS–MAA Joint Meetings, Seattle WA (January 2016)
- Member of the AMS Fellows Selection Committee (2015–2016)
- Member of the AMS Committee on Education (2015–Present)
- Member of the AMS Council (2015–Present)
- Lead organizer (with Kiran Kedlaya, Ken Ribet, Richard Taylor, and Annette Werner) of conference on  $p$ -adic Methods in Number Theory in honor of Robert F. Coleman, Berkeley CA (May 2015)
- Principle Guest Editor for a special volume of *Research in the Mathematical Sciences* in honor of Robert F. Coleman
- Co-organizer (with Sam Payne) of Simons Symposium on Tropical and Non-Archimedean Geometry in Rio Grande, Puerto Rico (February 2015)
- Editor for *Research in Number Theory* (2014–Present)
- Co-organizer (with Angie Cueto, Eric Katz, and Sam Payne) of BIRS workshop on Specialization of Linear Series for Tropical and Algebraic Curves, Banff International Resesarch Station (March 2014)
- Co-organizer (with Sam Payne) of AMS Mathematical Research Communities program in Snowbird, Utah (June 2013)
- Co-organizer (with Sam Payne) of Simons Symposium on Tropical and Non-Archimedean Geometry in St. John, U.S. Virgin Islands (March 2013)
- Served on NSF grant panels (Fall 2016 – forthcoming, Spring 2013, Spring 2011, Fall 2007, Fall 2003)

#### SELECTED RECENT PLENARY TALKS AND LECTURE SERIES:

- *Hodge theory in combinatorics*, Plenary talk, AMS Current Events Bulletin, AMS/MAA Joint Meetings, January 2017 (forthcoming).
- *The secret life of graphs*, Plenary talk, Benjamin Peirce Centennial Conference, Harvard University, Summer 2016.
- *Lower bounds for dynamical Green functions and applications*, Plenary talk, Silvermania Conference, Brown University, Summer 2015.
- *Tropical Jacobians and the Zhang measure on Berkovich curves*, Plenary talk, Conference on Non-Archimedean Geometry and its Applications, University of Michigan, Summer 2015.
- *Specialization of linear series from curves to graphs*, 4.5-hour mini-course at IMPA, Rio de Janeiro, Brazil, Summer 2015.
- *Tropical geometry and torsor structures on spanning trees*, Plenary talk, Triangle Lectures in Combinatorics, NC State, Spring 2015.
- *Riemann-Roch for graphs and applications*, Plenary talk, Southern California Number Theory Day, Caltech, Spring 2014.
- *Metrized complexes of curves*, Plenary talk, Western Algebraic Geometry Seminar, University of Utah, Fall 2012.
- *Linear series on metrized complexes of curves*, Plenary talk, Conference in honor of Lucien Szpiro's birthday at the CUNY Graduate Center, Summer 2012.
- *Tropical and non-archimedean geometry*, Four two-hour lectures as the Principal Speaker at the Bellairs Workshop in Number Theory, Barbados, Summer 2011.