

# Zhengyao Wu

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## 1 Work

August 2016-now: Lecturer, Department of Mathematics, Shantou University, China.

## 2 Education

Time	Degree	Major	Area	University	Advisor
Fall 2011 - Spring 2016	Ph.D.	Mathematics	Algebra	Emory University	Prof. Venapally Suresh
Fall 2007 - Spring 2010	M.S.	Mathematics	K-theory	Graduate University of Chinese Academy of Sciences	Prof. Guoping Tang
Fall 2003 - Spring 2007	B.S.	Math. and Applied Math.		Fudan University	

During Fall 2010-Spring 2011, I was in the Mathematics PhD program of Texas A&M University with GPA4/4. I left because I got married and moved to Atlanta to accompany my wife.

## 3 Research interests

**Broad:** algebra, algebraic geometry, algebraic groups and algebraic number theory.

**Specific:** local-global principles, quadratic and Hermitian forms, central simple algebras, involutions, maximal orders, projective homogeneous varieties (twisted flag varieties), torsors (principal homogeneous varieties), valuation theory, Galois cohomology, linear algebraic groups, algebraic curves and surfaces, algebraic  $K$ -theory, etc.

## 4 Papers

[3] Zhengyao Wu, *Hermitian  $u$ -invariants over function fields of  $p$ -adic curves*, accepted by Proc. Amer. Math. Soc., preprint [arXiv:1512.06921](https://arxiv.org/abs/1512.06921)

[2] Zhengyao Wu, *Hasse principle for hermitian spaces over semi-global fields*, J. Algebra, vol.458 (2016), pp.171-196. [Corrigendum](#) J. algebra vol.467 (2016), pp.366.

[1] Zhengyao Wu, Yubin Gao and Guoping Tang,  *$K$ -theory of higher bundle gerbes*, J. Univ. Chinese Acad. Sci., vol.27 (2010), no.6, pp.721-738.

## 5 Invited Talks

- *On Springer's theorem*, Palmetto Number Theory Series XXIV, Emory, Atlanta, Sep. 12-13, 2015.
- *Odd degree extensions*, The 12th Brauer group conference at Pingree Park, Colorado, 11 June 2015.

- Poster session: *A Hasse principle on hermitian forms*, Texas Algebraic geometry symposium at Rice University, 5 April 2014.
- *A Hasse principle on hermitian forms*, AMS Southeastern Spring Sectional Meeting at University of Tennessee, Knoxville, 22 March 2014.

## 6 Teaching

Time	Course	Evaluation	Students, Major	University
Spring 2017	Finite dimensional algebras (Lie algebras, representations)		Graduate, Mathematics	Shantou
Spring 2017	Probability and Statistics		Undergrad, Engineering	Shantou
Fall 2016	Probability and Statistics		Undergrad, Economics	Shantou
Fall 2016	Calculus B-I (for 4 weeks)		Undergrad, Engineering	Shantou
Fall 2015	Calculus II	7.71/9	Undergrad, Undeclared	Emory
Spring 2015	Calculus II	8.35/9	Undergrad, Undeclared	Emory
Fall 2014	Calculus I	7.07/9	Undergrad, Undeclared	Emory
Spring 2014	Calculus II	7.40/9	Undergrad, Undeclared	Emory
Fall 2013	Calculus I	7.23/9	Undergrad, Undeclared	Emory
Spring 2013	Calculus with Business Applications	5.46/9	Undergrad, Business	Emory

## 7 Conferences and workshops attended

- *Conference on Algebraic Representation Theory*, Harbin Institute of Technology, Shenzhen Graduate School, 2-5 Dec 2016.
- *Joint Mathematics Meetings*, Washington State Convention Center, 6-9 Jan 2016.
- *Georgia Algebraic Geometry Symposium*, Emory Univ., Atlanta, 23-25 Oct 2015.
- *Local-Global Principles and Their Obstructions*, Univ. of Pennsylvania, Philadelphia, 1-3 Oct 2015.
- *Palmetto Number Theory Series XXIV*, Emory Univ., Atlanta, Sep. 12-13, 2015.
- *The 12th Brauer group conference*, Pingree Park, Colorado, 8-12 June, 2015.
- *AMS Spring Southeastern Sectional Meeting*, Univ. of Alabama in Huntsville, 27-29 March 2015.
- *Joint Athens-Atlanta Number Theory Seminar*, Georgia Tech., Atlanta, 4 Nov 2014.
- *Georgia Algebraic Geometry Symposium*, Univ. of Georgia, Athens, 17-19 Oct 2014.
- *AMS Spring Southeastern Sectional Meeting*, Univ. of Tennessee, Knoxville, 21-23 March 2014.
- *Texas Algebraic geometry symposium*, Rice Univ., 4-6 April 2014.
- *Joint Athens-Atlanta Number Theory Seminar*, Emory Univ., Atlanta, 25 Feb 2014.
- *Georgia Algebraic Geometry Symposium*, Univ. of Georgia, Athens, 18-20 Oct 2013.
- *Homotopical Methods in Algebraic Geometry*, Univ. of Southern California, 28 May-1 June 2013.
- *Joint Athens-Atlanta Number Theory Seminar*, Georgia Tech., Atlanta, 16 Apr 2013.

- *Joint Athens-Atlanta Number Theory Seminar*, Emory Univ., Atlanta, 25 Oct 2012.
- *MSRI Summer Graduate Workshop: Noncommutative algebraic geometry*, MSRI, 18-29 June 2012.
- *Arizona Winter School: Ramification and Geometry*, Univ. of Arizona, 10-14 March 2012.
- *Joint Athens-Atlanta Number Theory Seminar*, Georgia Tech., Atlanta, 2 Nov 2011.
- *Ramification in Algebra and Geometry*, Emory, 16-20 May 2011.
- *Graduate Teaching Academy*, TAMU, Fall 2010-Spring 2011.
- *Texas Geometry and Topology Conference*, TAMU, 12-14 Nov 2010.
- *Southeast Texas Discrete Math and its Applications Workshop #2*, Sam Houston State Univ., 16 Oct 2010
- *Sino-Indian Workshop on Mathematics*, Beijing International Center for Mathematical Research, 26-29 Oct 2009.
- *The 11th National Conference in Algebra*, Xiangtan Univ., 19-25 Oct 2008.

## 8 Other skills

- **Languages:** Chinese (native), English (proficient). I can read math papers in French/German (quickly) and Russian (slowly) with the help of Google Translate.
- **Latex:** I always use Latex to write papers and lecture notes; use beamer to prepare slides.
- **Webs:** I can design web pages with Html, Javascript and Mathjax; I can design a conference webpage with a registration form with the help of Google Forms.
- **Animations:** I sometimes make short animations on calculator/software instructions with the help of screen-record softwares when I teach undergraduate courses.
- **Programming:** I often use Python, Java and Prolog. I also know basics of C/C++ and SAGE.
- **Driving:** Georgia Driver's Liscence class C.

Last updated: January 6, 2017