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#### **Research Interests**

Affine Hecke algebras, quantum groups, modular representations, geometric representation theory, and algebraic combinatorics.

#### Experience

2017 - now	Limited Term Assistant Professor, University of Georgia
2016 - 2017	Postdoc Fellow, Max-Planck Institute for Mathematics in Bonn
2016	Visitor, Institute of Mathematics, Academia Sinica
2011 - 2016	Ph.D. Mathematics, University of Virginia Advisor: Prof. Weiqiang Wang
2010 - 2011	Research assistant, National Center of Theoretical Sciences, Taiwan
2005 - 2009	B.S. Mathematics; B.S.E. Electrical Engineering, National Taiwan University

#### Publications

- Z. Fan, C. Lai, Y. Li, L. Luo, and W. Wang, Affine Hecke algebras and quantum symmetric pairs, arXiv:1609.06199, 67 pages.
- 2. Z. Fan, C. Lai, Y. Li, L. Luo, and W. Wang, *Affine flag varieties and quantum symmetric pairs*, arXiv:1602.04383, **108** pages, accepted by Mem. Amer. Math. Soc.
- 3. C. Lai and L.Luo. An elementary construction of monomial bases of quantum affine  $\mathfrak{gl}_n$ , J. Lond. Math. Soc. **96** (2017), 15–27.
- C. Lai. On Weyl modules over affine Lie algebras in prime characteristic, Transform. Groups 21 (2016), 1123–1153.
- S. Eu, T. Fu and C. Lai. Cycle lemma, parking functions and related multigraphs. Graphs Combin., 26 (2010), 345–360.
- S. Eu, T. Fu, and C. Lai. On the enumeration of parking functions by leading terms. Adv. in Appl. Math., 35 (2005), 392–406.

## Teaching

- University of Georgia Calculus III (Fall 2017), Calculus I (Fall 2017).
- University of Virginia Calculus II (Fall 2015), Applied Calculus II (Spring 2016, 2015, 2014), Applied Calculus I (Fall 2013)

# Conference talks

2017	$\operatorname{Sep}$	AMS Sectional Meeting, University at Buffalo (SUNY), New York
	Jul	Taipei Workshop on Representation Theory of Lie Superalgebras and Related Top-
		ics, Academia Sinica, Taiwan
2016	May	Southeastern Lie Theory Workshop, University of Virginia
	May	Workshop on Hecke Algebras and Lie Theory, University of Ottawa
2015	Oct	Southeastern Lie Theory Workshop, North Carolina State University
	Jul	Workshop on Lie Theory and Representation Theory, East China Normal Univer-
		sity
	Mar	AMS Sectional Meeting, Georgetown University
2014	May	Southeastern Lie Theory Workshop, University of Georgia
2007	Jun	Cross-strait Conference on Graph Theory and Combinatorics, National Taiwan
		University

### Seminar talks and mini courses

2017	Sep	Algebra Seminar, University of Georgia
	Aug	Oberseminar, University of Georgia
	Aug	Algebra Seminar, University of Georgia
	Apr	Algebra Seminar, Universität Bielefeld, Germany
	Feb	Algebra Seminar, Université Clermont Auvergne, France
2016	Dec	Algebra Seminar, Universität Bonn, Germany
	Dec	Algebra Seminar, Institut de mathématiques de Jussieu-Paris Rive Gauche, France
	Dec	Oberseminar, Max Planck Institute for Mathematics in Bonn, Germany
	Nov	Algebra Seminar, Newcastle University, UK
	Oct	Emmy Noether Seminar, FAU Erlangen-Nürnberg, Germany
	Sep	Algebra Seminar, University at Buffalo (SUNY)
	July	Mini-course: Fifty shades of quantum groups, Taiwan Normal University, Taiwan
2015	Dec	Lie Group/Representation Theory Seminar, University of Maryland
	Nov	Algebra seminar, University of Virginia
2014	Dec	Seminar, Academia Sinica, Taiwan
	Dec	Mini-course on representation theory of Lie algebras, Central University, Taiwan
	Dec	Seminar, National Central University
	Jul	Mini-course on representation theory of Lie algebras, Taiwan Normal University,
		Taiwan
	May	Algebra seminar, University of Virginia
2013	Nov	Graduate seminar, University of Virginia
	Sep	Algebra seminar, University of Virginia
2010	Nov	Seminar, University of Kaohsiung, Taiwan

## Honors and Awards

- 2014 | Dissertation fellowship, University of Virginia
- 2011 Presidential fellowship, University of Virginia
- 2011 Studying Abroad Scholarship, Ministry of Education, Taiwan