

Kang Lu

CONTACT INFORMATION

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RESEARCH INTERESTS

Generally speaking, I am interested in **Representation Theory** and **Quantum Algebras**. More specifically, my current research interests are: Bethe ansatz method, Representation Theory of Quantum Groups, Lie Algebras and Superalgebras, and Integrable System.

EDUCATION

Indiana University Purdue University Indianapolis, Indianapolis, Indiana USA

Ph.D. student, Mathematics, August 2014 (expected graduation date: May 2019)

- Advisor: [Evgeny Mukhin](#)

Zhejiang University, Hangzhou, Zhejiang China

M.S., Mathematics, July 2014

- Advisor: [Gang Han](#)

Fudan University, Shanghai, China

B.A., Mathematics, July 2010

HONORS AND AWARDS

Outstanding Advanced Graduate Student, IUPUI, 2016

Outstanding Beginning Graduate Student, IUPUI, 2015

Charalambos D. Aliprantis Prize, IUPUI, 2015

First Year Fellowship from School of Science, IUPUI, 2014

Excellent Master Candidate of Zhejiang University, 2013

PUBLICATIONS

Kang Lu, E. Mukhin. *On the Gaudin model of type G_2* , preprint, [arXiv:1711.02511](https://arxiv.org/abs/1711.02511).

Kang Lu, *Lower bounds for numbers of real self-dual spaces in problems of Schubert calculus*, preprint, [arXiv:1710.06534](https://arxiv.org/abs/1710.06534).

Kang Lu, E. Mukhin, and A. Varchenko. *Self-dual Grassmannian, Wronski map, and representations of $\mathfrak{gl}_N, \mathfrak{sp}_{2r}, \mathfrak{so}_{2r+1}$* , preprint, [arXiv:1705.02048](https://arxiv.org/abs/1705.02048).

Gang Han, Yucheng Liu, and Kang Lu. *Multiplicity free gradings on semisimple Lie and Jordan algebras and skew root systems*, preprint, [arXiv:1611.03943](https://arxiv.org/abs/1611.03943).

Kang Lu, E. Mukhin, and A. Varchenko. *On the Gaudin model associated to Lie algebras of classical types*, J. Math. Phys. 57, 101703 (2016), [arXiv:1512.08524](https://arxiv.org/abs/1512.08524).

Kang Lu, Gang Han, and Jun Yu. *Fine gradings of complex simple Lie algebras and Finite Root Systems*, preprint, [arXiv:1410.7945](https://arxiv.org/abs/1410.7945).

CONFERENCES

[Representation Theory at the Crossroads of Modern Mathematics](#), Universit de Reims Champagne Ardenne, May 29-June 2, 2017.

Poster: [Self-dual Grassmannian and Representations of \$\mathfrak{gl}_N, \mathfrak{sp}_{2r}\$, and \$\mathfrak{so}_{2r+1}\$](#)

AMS Spring Central Sectional Meeting, Indiana University, Bloomington, April 1-2, 2017.
Talk: Bethe ansatz method in Gaudin Model

Algebra, Geometry and Combinatorics Day (ALGECOM-13), University of Notre Dame, April 30, 2016.

Lie Algebras, Vertex Operator Algebras, and Related Topics, University of Notre Dame, Aug 14-18, 2015.