

## Kang Lu

---

CONTACT INFORMATION	Department of Mathematical Sciences 402 N. Blackford, LD 255 Indianapolis, IN 46202 USA	Phone: (317) 487-9570 E-mail: <a href="mailto:lukang@iupui.edu">lukang@iupui.edu</a> Homepage: <a href="http://lukang.ac.cn">lukang.ac.cn</a>
RESEARCH INTERESTS	Generally speaking, I am interested in <b>Representation Theory</b> and <b>Quantum Algebras</b> . More specifically, my current research interests are: Bethe ansatz method, Representation Theory of Quantum Groups, Lie Algebras and Superalgebras, and Integrable System.	
EDUCATION	<b>Indiana University Purdue University Indianapolis</b> , Indianapolis, IN USA Ph.D. candidate, expected graduation date: May 2019 <ul style="list-style-type: none"><li>• Advisor: <a href="#">Evgeny Mukhin</a></li></ul> <b>Zhejiang University</b> , Hangzhou, Zhejiang China M.S., Mathematics, July 2014 <ul style="list-style-type: none"><li>• Advisor: <a href="#">Gang Han</a></li></ul> <b>Fudan University</b> , Shanghai, China B.A., Mathematics, July 2010	
HONORS AND AWARDS	Yuri Abramovich Memorial Scholarship, IUPUI, 2017 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	
PREPRINTS	<ol style="list-style-type: none"><li>1. Kang Lu, <i>Lower bounds for numbers of real self-dual spaces in problems of Schubert calculus</i>, preprint, <a href="https://arxiv.org/abs/1710.06534">arXiv:1710.06534</a>.</li><li>2. Kang Lu, E. Mukhin, and A. Varchenko. <i>Self-dual Grassmannian, Wronski map, and representations of <math>\mathfrak{gl}_N</math>, <math>\mathfrak{sp}_{2r}</math>, <math>\mathfrak{so}_{2r+1}</math></i>, preprint, <a href="https://arxiv.org/abs/1705.02048">arXiv:1705.02048</a>.</li><li>3. Gang Han, Yucheng Liu, and Kang Lu. <i>Multiplicity free gradings on semisimple Lie and Jordan algebras and skew root systems</i>, preprint, <a href="https://arxiv.org/abs/1611.03943">arXiv:1611.03943</a>.</li><li>4. Kang Lu, Gang Han, and Jun Yu. <i>Fine gradings of complex simple Lie algebras and Finite Root Systems</i>, preprint, <a href="https://arxiv.org/abs/1410.7945">arXiv:1410.7945</a> .</li></ol>	

- PUBLICATIONS
1. Kang Lu, E. Mukhin. *On the Gaudin model of type  $G_2$* , to appear in Commun. Contemp. Math., [arXiv:1711.02511](#).
  2. 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](#).
- 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.
- TEACHING
- MATH 11000: Fundamentals of Algebra, 2018 Spring
- MATH 16500: Integrated Calculus and Analytic Geometry I, 2017 Fall