

# Hyun Kyu Kim

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## Contact Information

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**Research Interests :** Representation theory, Quantum groups, and group theory

## Education

- **Yale University**, New Haven, CT, Connecticut, USA  
 Ph.D. student, Department of mathematics, 2008-present  
 Advisor : Professor Igor B. Frenkel
- **Cornell University**, Ithaca, NY, USA: B.A. in mathematics, 2008 (summa cum laude)

## Teaching

- Calculus Tutor (MATH 112,115,118,120), Yale Univ., Fall 2008
- Residential College Math & Science Tutor, Yale Univ., Fall 2009
- Teaching Assistant (MATH 225), Yale Univ., Spring 2010

## Awards and Honors

- Korean Presidential Science Scholarship for Undergraduates, 2004 - 2008.
- VIGRE 2005 Summer Stipend Honors Thesis, Cornell Univ., 2005.
- Hunter R. Rawlings III Cornell Presidential Research Scholars, Cornell Univ., 2006-2008
- Harry S. Kieval Prize, Cornell Univ. May 2008.
- some prizes in math competitions
- University Fellowship and Teaching Fellowship, Yale Univ. 2008-2010.

## Selected Talks

*Simultaneous constructions of Sporadic groups*

- Special session on computational group theory, 1024th AMS meeting (Davidson College, NC), March 2007
- Seminar talk, Binghamton Univ., NY, October 2007

## Selected Publications

- [1] (with G. O. Michler) Simultaneous constructions of the sporadic groups  $Co_2$  and  $Fi_{22}$ . *Computational group theory and the theory of groups*, 141–234, Contemp. Math. 470, Amer. Math. Soc., Providence, RI, 2008. (in arXiv:0906.0623)
- [2] *Representation Theoretic Existence Proof for Fischer Group  $Fi_{23}$* , undergraduate senior thesis in Cornell Univ., 2008. (in arXiv:0904.0639)
- [3] (with G. O. Michler) *Construction of Fischer's sporadic group  $Fi'_{24}$  inside  $GL_{8671}(13)$* , arXiv:0904.1064
- [4] (with I. B. Frenkel) *Quantum Teichmüller space from quantum plane*, arXiv:1006.3895

## Books contributed to

G. Michler. *Theory of Finite Simple Groups II*, Cambridge Univ. Press, NY, 2010.