

# Publications and preprints: Apoorva Khare

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## Publications

- 1997 *Divisibility tests*, Furman University Electronic Journal of Undergraduate Mathematics, Vol. **3**, Pages 1–5.
- 2005 *Category  $\mathcal{O}$  over a deformation of the symplectic oscillator algebra*, Journal of Pure and Applied Algebra **195** No. 2 (2005), 131–166.
- 2006 *Category  $\mathcal{O}$  over the symplectic oscillator algebra*, Ph. D. Thesis, University of Chicago, June 2006.
- 2007 *Divisibility tests and recurring decimals in Euclidean domains* (final section with Pieter Moree), JP Journal of Algebra, Number Theory, and Applications (JPANTA) **7** No. 1 (2007), 1–32.
- 2007 *Quantized symplectic oscillator algebras of rank one*, joint with Wee Liang Gan; Journal of Algebra **310** No. 2 (2007), 671–707.
- 2009 *Vector spaces as unions of proper subspaces*, Linear Algebra and its Applications **431** No. 9 (2009), 1681–1686.
- 2009 *Functoriality of the BGG Category  $\mathcal{O}$* , Communications in Algebra **37** No. 12 (2009), 4431–4475.
- 2010 *Center and representations of infinitesimal Hecke algebras of  $\mathfrak{sl}_2$* , joint with Akaki Tikaradze; Communications in Algebra **38** No. 2 (2010), 405–439.
- 2012 *Faces of weight polytopes and a generalization of a theorem of Vinberg*, joint with T.B. Ridenour; Algebras and Representation Theory **15** No. 3 (2012), 593–611.
- 2012 *Faces of polytopes and Koszul algebras*, joint with V. Chari and T.B. Ridenour; Journal of Pure and Applied Algebra **216** No. 7 (2012), 1611–1625.

## Accepted

- To appear *The BGG Category  $\mathcal{O}$* , to appear in the Encyclopedia of Mathematics (Michiel Hazewinkel, Ed.), Kluwer Academic Publishers.

## Preprints

- 2007 *The sum of a finite group of weights of a Hopf algebra*, math.RA/0701467.
- 2007 *Drinfeld-Hecke algebras over cocommutative algebras*, arxiv:0705.2067.
- 2008 *Axiomatic framework for the BGG Category  $\mathcal{O}$* , arxiv:0811.2080.
- 2009 *The covering problem for Chinese rings*, arxiv:0906.1023v2.