Cornell University Library

We gratefully acknowledge support from
the Simons Foundation
and member institutions

arXiv.org > math > arXiv:1107.4906

Search or Article-id

(Help | Advanced search)

All papers | Go!

Mathematics > Commutative Algebra

Symbolic powers versus regular powers of ideals of general points in P^1 x P^1

Elena Guardo, Brian Harbourne, Adam Van Tuyl

(Submitted on 25 Jul 2011 (v1), last revised 22 Feb 2012 (this version, v2))

Recent work of Ein-Lazarsfeld-Smith and Hochster-Huneke raised the problem of which symbolic powers of an ideal are contained in a given ordinary power of the ideal. Bocci-Harbourne developed methods to address this problem, which involve asymptotic numerical characters of symbolic powers of the ideals. Most of the work done up to now has been done for ideals defining 0-dimensional subschemes of projective space. Here we focus on certain subschemes given by a union of lines in ${\bf P}^3$ which can also be viewed as points in ${\bf P}^1\times {\bf P}^1$. We also obtain results on the closely related problem, studied by Hochster and by Li-Swanson, of determining situations for which each symbolic power of an ideal is an ordinary power.

Comments:	20 pages; some material taken out of the previous version and put in a new paper (1202.4370) in expanded form
Subjects:	**Commutative Algebra (math.AC)**; Algebraic Geometry (math.AG)
MSC classes:	13F20, 13A15, 14C20
Cite as:	**arXiv:1107.4906 [math.AC]**
	(or **arXiv:1107.4906v2 [math.AC]** for this version)

Submission history

From: Brian Harbourne [view email]
[v1] Mon, 25 Jul 2011 11:48:30 GMT (26kb)
[v2] Wed, 22 Feb 2012 03:23:00 GMT (22kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.