

MORE INFORMATION ABOUT THE PAPER:

Rubei, Elena "Resolutions of Segre embeddings of projective spaces of any dimension", J. Pure Appl. Algebra 208 (2007), no. 1, 29–37

Description of the paper. The study of the syzygies of the varieties, and in particular of Segre-Veronese varieties, started thirty years ago; in those years Green introduced the so called Property N_p : briefly, a variety satisfies Property N_p if and only if its syzygies are linear up to the step p .

The problem of syzygies of Veronese varieties (precisely of the characterization of the numbers d, n, p such that the bundle $O(d)$ on P^n satisfies Green's Property N_p) proved to be very difficult: although the study of this problem started many years ago and several important mathematicians (among the others, Green, Eisenbud, Ein...) have worked on it, it has not been solved completely (in particular many cases of Veronese varieties and Segre-Veronese varieties are still open).

The paper Rubei, E. "Resolutions of Segre embeddings of projective spaces of any dimension", J. Pure Appl. Algebra 208 (2007), solves completely the problem of Property N_p for Segre varieties: it shows that the product of more than three projective spaces embedded by the bundle $O(1, \dots, 1)$ satisfies Property N_p if and only if $p \leq 3$.

As many papers that solve completely a problem, it has been cited less than others (even if it is perhaps more valuable than others with more citations). I consider it one of my best papers.

THE PAPER HAS BEEN CITED IN:

1) Hering, Milena; Schenck, Hal; Smith, Gregory G. Syzygies, multigraded regularity and toric varieties. Compos. Math. 142 (2006), no. 6, 1499–1506.

2) Eisenbud, David; Green, Mark; Hulek, Klaus; Popescu, Sorin Restricting linear syzygies: algebra and geometry. Compos. Math. 141 (2005), no. 6, 1460–1478.

3) Couvreur, Alain; Duursma, Iwan "Evaluation Codes from smooth Quadric Surfaces and Twisted Segre Varieties", Proceedings of The Seventh International Workshop on Coding and Cryptography (2011), Paris, France <http://wcc2011.inria.fr/>

4) Snowden, Andrew "Syzygies of Segre embeddings and Delta-modules"- Arxiv preprint arXiv:1006.5248, 2010 - arxiv.org

5) Mathematisches Forschungsinstitut Oberwolfach Report No. 5/2006 "Convex and Algebraic Geometry" Workshop organised by Klaus Altmann, Victor Batyrev, Bernard Teissier

NOTE. To make this list I have used GoogleScholar, but I have excluded Ph.D theses and I have eliminated duplicates, that is, I have put the papers that changed name over the years only once.