

List of Publications

FABRIZIO ZANELLO

Publications in refereed journals

1. *I numeri di Fermat*, Periodico di Matematiche, VII, **5** (1998), no. 2-3, 63-68.
2. *Some observations on the statistical independence and the distribution of zeros in the Selberg Class*, Rend. Circ. Mat. Palermo (2), **52** (2003), no. 2, 211-223.
3. *Extending the idea of compressed algebra to arbitrary socle-vectors*, J. Algebra **270** (2003), no. 1, 181-198.
4. *When are There Infinitely Many Irreducible Elements in a Principal Ideal Domain?*, Amer. Math. Monthly **111** (2004), no. 2, 150-152.
5. *Extending the idea of compressed algebra to arbitrary socle-vectors, II: cases of non-existence*, J. Algebra **275** (2004), no. 2, 730-748.
6. *Stanley's theorem on codimension 3 Gorenstein h -vectors*, Proc. Amer. Math. Soc. **134** (2006), no. 1, 5-8.
7. *Level algebras of type 2*, Comm. Algebra **34** (2006), no. 2, 691-714.
8. *When is there a unique socle-vector associated to a given h -vector?*, Comm. Algebra **34** (2006), no. 5, 1847-1860.
9. *A non-unimodal codimension 3 level h -vector*, J. Algebra **305** (2006), no. 2, 949-956.
10. *Improving the bounds of the Multiplicity Conjecture: the codimension 3 level case*, J. Pure Appl. Algebra **209** (2007), no. 1, 79-89.
11. *Partial derivatives of a generic subspace of a vector space of forms: quotients of level algebras of arbitrary type*, Trans. Amer. Math. Soc. **359** (2007), no. 6, 2675-2686.
12. (with J. Migliore): *The Hilbert functions which force the Weak Lefschetz Property*, J. Pure Appl. Algebra **210** (2007), no. 2, 465-471.

13. *The h-vector of a relatively compressed level algebra*, Comm. Algebra **35** (2007), no. 4, 1087-1091.
14. (with M. Boij): *Level Algebras with Bad Properties*, Proc. Amer. Math. Soc. **135** (2007), no. 9, 2713-2722.
15. (with J. Migliore and U. Nagel): *An improved Multiplicity Conjecture for codimension three Gorenstein algebras*, Comm. Algebra **36** (2008), no. 1, 112-119.
16. (with J. Migliore and U. Nagel): *A characterization of Gorenstein Hilbert functions in codimension four with small initial degree*, Math. Res. Lett. **15** (2008), no. 2, 331-349.
17. (with J. Migliore and U. Nagel): *On the degree two entry of a Gorenstein h-vector and a conjecture of Stanley*, Proc. Amer. Math. Soc. **136** (2008), no. 8, 2755-2762.
18. (with J. Migliore): *The strength of the Weak Lefschetz Property*, Illinois J. Math. **52** (2008), no. 4, 1417-1433.
19. (with J. Migliore and U. Nagel): *Bounds and asymptotic minimal growth for Gorenstein Hilbert functions*, J. Algebra **321** (2009), no. 5, 1510-1521.
20. (with J. Zylinski): *Forcing the Strong Lefschetz and the Maximal Rank Properties*, J. Pure Appl. Algebra **213** (2009), no. 6, 1026-1030.
21. *Interval Conjectures for level Hilbert functions*, J. Algebra **321** (2009), no. 10, 2705-2715.
22. (with A. Van Tuyl): *Simplicial complexes and Macaulay's inverse systems*, Math. Z., in press.
23. (with M. Boij): *Some algebraic consequences of Green's hyperplane restriction theorems*, J. Pure Appl. Algebra, in press.

Papers in preparation

1. (with M. Boij, J. Migliore, R. Mirò-Roig and U. Nagel): *On the shape of a pure O -sequence*, in preparation.
2. (with T. Hà): *Pure O -sequences and matroid h -vectors*, in preparation.
3. (with M. Boij, J. Migliore, R. Mirò-Roig and U. Nagel): *The Lefschetz Properties and flawlessness of level and Gorenstein Hilbert functions*, in preparation.

Other publications

1. *La Classe di Selberg: distribuzione statistica e zeri delle combinazioni lineari*, M.S. Thesis, University of Genoa, Italy (2001).
2. *H -vectors and socle-vectors of graded artinian algebras*, Ph.D. Thesis, Queen's University at Kingston, Canada (2004).

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