## Rafael H Villarreal

List of Publications by Year in descending order

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394421 345221 1,702 87 19 36 citations g-index h-index papers 89 89 89 295 docs citations times ranked citing authors all docs

| #  | Article  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | On the Ideal Theory of Graphs. Journal of Algebra, 1994, 167, 389-416.   | 0.7 | 210       |
| 2  | Cohen-macaulay graphs. Manuscripta Mathematica, 1990, 66, 277-293.   | 0.6 | 182       |
| 3  | Rees algebras of edge ideals. Communications in Algebra, 1995, 23, 3513-3524.  | 0.6 | 108       |
| 4  | The Integral Closure of Subrings Associated to Graphs. Journal of Algebra, 1998, 199, 281-289.   | 0.7 | 64        |
| 5  | Edge Ideals: Algebraic and Combinatorial Properties. , 2012, , 85-126.   |     | 64        |
| 6  | Shellable graphs and sequentially Cohen–Macaulay bipartite graphs. Journal of Combinatorial Theory - Series A, 2008, 115, 799-814.                       | 0.8 | 61        |
| 7  | Monomial Algebras. Pure and Applied Mathematics, 2000, , .   | 0.0 | 59        |
| 8  | Associated primes of powers of edge ideals. Collectanea Mathematica, 2012, 63, 361-374.  | 0.9 | 56        |
| 9  | Ring graphs and complete intersection toric ideals. Discrete Mathematics, 2010, 310, 430-441.  | 0.7 | 43        |
| 10 | Algebraic methods for parameterized codes and invariants of vanishing ideals over finite fields. Finite Fields and Their Applications, 2011, 17, 81-104. | 1.0 | 43        |
| 11 | Affine cartesian codes. Designs, Codes, and Cryptography, 2014, 71, 5-19.  | 1.6 | 43        |
| 12 | Minimum distance functions of graded ideals and Reedâ€"Muller-type codes. Journal of Pure and Applied Algebra, 2017, 221, 251-275.                       | 0.6 | 34        |
| 13 | The minimum distance of parameterized codes on projective tori. Applicable Algebra in Engineering, Communications and Computing, 2011, 22, 249-264.      | 0.5 | 33        |
| 14 | ON THE NORMALITY OF MONOMIAL IDEALS OF MIXED PRODUCTS. Communications in Algebra, 2001, 29, 3571-3580.   | 0.6 | 30        |
| 15 | Blowup Algebras of Square-Free Monomial Ideals and Some Links to Combinatorial Optimization Problems. Rocky Mountain Journal of Mathematics, 2009, 39, . | 0.4 | 29        |
| 16 | Cohen–Macaulay, shellable and unmixed clutters with a perfect matching of König type. Journal of Pure and Applied Algebra, 2008, 212, 1770-1786.         | 0.6 | 28        |
| 17 | Cohen-macaulay bipartite graphs. Archiv Der Mathematik, 1997, 68, 124-128.   | 0.5 | 23        |
| 18 | Generic Gaussian ideals. Journal of Pure and Applied Algebra, 1998, 125, 117-127.  | 0.6 | 21        |

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|----|---|-----|-----------|
| 19 | On the equations of the edge cone of a graph $\hat{A}\P$ and some applications. Manuscripta Mathematica, 1998, 97, 309-317.                   | 0.6 | 20        |
| 20 | Normality of subrings generated by square free monomials. Journal of Pure and Applied Algebra, 1996, 113, 91-106.                             | 0.6 | 19        |
| 21 | Constraints for the normality of monomial subrings and birationality. Proceedings of the American Mathematical Society, 2002, 131, 2043-2048. | 0.8 | 18        |
| 22 | On systems of binomials in the ideal of a toric variety. Proceedings of the American Mathematical Society, 2001, 130, 345-351.                | 0.8 | 17        |
| 23 | Torsion freeness and normality of blowup rings of monomial ideals. Lecture Notes in Pure and Applied Mathematics, 2005, , 69-84.              | 0.1 | 17        |
| 24 | Rees algebras and polyhedral cones of ideals of vertex covers of perfect graphs. Journal of Algebraic Combinatorics, 2008, 27, 293-305.       | 0.8 | 16        |
| 25 | Degree and Algebraic Properties of Lattice and Matrix Ideals. SIAM Journal on Discrete Mathematics, 2014, 28, 394-427.                        | 0.8 | 16        |
| 26 | Edge ideals of oriented graphs. International Journal of Algebra and Computation, 2019, 29, 535-559.  | 0.5 | 16        |
| 27 | Relative volumes and minors in monomial subrings. Linear Algebra and Its Applications, 2003, 374, 275-290.                                    | 0.9 | 15        |
| 28 | Rees cones and monomial rings of matroids. Linear Algebra and Its Applications, 2008, 428, 2933-2940.   | 0.9 | 14        |
| 29 | Degree bounds in monomial subrings. Illinois Journal of Mathematics, 1997, 41, .  | 0.1 | 14        |
| 30 | A note on affine toric varieties. Linear Algebra and Its Applications, 2000, 318, 173-179.  | 0.9 | 12        |
| 31 | Generalized minimum distance functions and algebraic invariants of Geramita ideals. Advances in Applied Mathematics, 2020, 112, 101940.       | 0.7 | 12        |
| 32 | Canonical modules of certain edge subrings. European Journal of Combinatorics, 2003, 24, 471-487.   | 0.8 | 11        |
| 33 | Combinatorics of Cremona monomial maps. Mathematics of Computation, 2012, 81, 1857-1867.  | 2.1 | 11        |
| 34 | Regularity and algebraic properties of certain lattice ideals. Bulletin of the Brazilian Mathematical Society, 2014, 45, 777-806.             | 0.8 | 11        |
| 35 | Vanishing Ideals Over Graphs and Even Cycles. Communications in Algebra, 2015, 43, 1050-1075.   | 0.6 | 11        |
| 36 | Cohen-Macaulay admissible clutters. Journal of Commutative Algebra, 2009, 1, .  | 0.3 | 11        |

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|----|---|-----|-----------|
| 37 | Critical binomials of monomial curves. Communications in Algebra, 1994, 22, 3037-3052.  | 0.6 | 10        |
| 38 | A note on the Rees algebra of a bipartite graph. Journal of Pure and Applied Algebra, 2005, 201, 17-24.   | 0.6 | 10        |
| 39 | Ring graphs and toric ideals. Electronic Notes in Discrete Mathematics, 2007, 28, 393-400.  | 0.4 | 10        |
| 40 | Algebraic and combinatorial properties of ideals andÂalgebras of uniform clutters of TDI systems. Journal of Combinatorial Optimization, 2011, 21, 269-292. | 1.3 | 10        |
| 41 | Generalized minimum distance functions. Journal of Algebraic Combinatorics, 2019, 50, 317-346.  | 0.8 | 10        |
| 42 | The Degree and Regularity of Vanishing Ideals of Algebraic Toric Sets Over Finite Fields. Communications in Algebra, 2013, 41, 3376-3396.                   | 0.6 | 9         |
| 43 | Symbolic Powers of Monomial Ideals and Cohen-Macaulay Vertex-Weighted Digraphs. , 2018, , 491-510.  |     | 9         |
| 44 | On Gorenstein ideals of codimension four. Proceedings of the American Mathematical Society, 1986, 98, 205-205.  | 0.8 | 9         |
| 45 | Linear syzygies and birational combinatorics. Resultate Der Mathematik, 2005, 48, 326-343.  | 0.2 | 8         |
| 46 | ON THE VANISHING IDEAL OF AN ALGEBRAIC TORIC SET AND ITS PARAMETRIZED LINEAR CODES. Journal of Algebra and Its Applications, 2012, 11, 1250072.             | 0.4 | 8         |
| 47 | Minimum distance functions of complete intersections. Journal of Algebra and Its Applications, 2018, 17, 1850204.   | 0.4 | 8         |
| 48 | The second generalized Hamming weight of some evaluation codes arising from a projective torus. Finite Fields and Their Applications, 2018, 52, 370-394.    | 1.0 | 8         |
| 49 | Depth and Regularity of Monomial Ideals via Polarization and Combinatorial Optimization. Acta<br>Mathematica Vietnamica, 2019, 44, 243-268.                 | 0.4 | 8         |
| 50 | The dual of an evaluation code. Designs, Codes, and Cryptography, 2021, 89, 1367-1403.  | 1.6 | 8         |
| 51 | Explicit representations of the edge cone of a graph. International Journal of Contemporary Mathematical Sciences, 0, , 53-66.                              | 0.3 | 8         |
| 52 | Edge ideals of clique clutters of comparability graphs and the normality of monomial ideals.<br>Mathematica Scandinavica, 2010, 106, 88.                    | 0.2 | 8         |
| 53 | Toric Ideals Generated by Circuits. Algebra Colloquium, 2012, 19, 665-672.  | 0.2 | 7         |
| 54 | Parameterized affine codes. Studia Scientiarum Mathematicarum Hungarica, 2012, 49, 406-418.   | 0.1 | 7         |

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|----|---|-----|-----------|
| 55 | Linear codes over signed graphs. Designs, Codes, and Cryptography, 2020, 88, 273-296.   | 1.6 | 7         |
| 56 | Evaluation codes and their basic parameters. Designs, Codes, and Cryptography, 2021, 89, 269-300.   | 1.6 | 7         |
| 57 | Complete intersection vanishing ideals on degenerate tori over finite fields. Arabian Journal of Mathematics, 2013, 2, 189-197.   | 0.9 | 6         |
| 58 | COMPLETE INTERSECTIONS IN BINOMIAL AND LATTICE IDEALS. International Journal of Algebra and Computation, 2013, 23, 1419-1429.   | 0.5 | 6         |
| 59 | Computing the degree of a lattice ideal of dimension one. Journal of Symbolic Computation, 2014, 65, 15-28.   | 0.8 | 6         |
| 60 | The v-number of edge ideals. Journal of Combinatorial Theory - Series A, 2021, 177, 105310.   | 0.8 | 6         |
| 61 | Ehrhart Clutters: Regularity and Max-Flow Min-Cut. Electronic Journal of Combinatorics, 2010, 17, .   | 0.4 | 6         |
| 62 | Rees algebras and Koszul homology. Journal of Algebra, 1988, 119, 83-104.   | 0.7 | 5         |
| 63 | A note on generators of least degree in Gorenstein ideals. Proceedings of the American Mathematical Society, 1996, 124, 377-382.  | 0.8 | 5         |
| 64 | On the normality of Rees algebras associated to totally unimodular matrices. Resultate Der Mathematik, 2002, 41, 258-264.   | 0.2 | 5         |
| 65 | Cohen-Macaulay clutters with combinatorial optimization properties and parallelizations of normal edge ideals. Sao Paulo Journal of Mathematical Sciences, 2009, 3, 61. | 0.4 | 5         |
| 66 | Normality of semigroups with some links to graph theory. Discrete Mathematics, 2005, 302, 267-284.  | 0.7 | 4         |
| 67 | Systems with the integer rounding property in normal monomial subrings. Anais Da Academia<br>Brasileira De Ciencias, 2010, 82, 801-811.                                 | 0.8 | 4         |
| 68 | On complete monomial ideals. Journal of Commutative Algebra, 2016, 8, .   | 0.3 | 4         |
| 69 | Induced Matchings and the v-Number of Graded Ideals. Mathematics, 2021, 9, 2860.  | 2.2 | 4         |
| 70 | Rees algebras of filtrations of covering polyhedra and integral closure of powers of monomial ideals. Research in Mathematical Sciences, 2022, 9, 1.                    | 1.0 | 4         |
| 71 | Koszul Homology of Cohen-Macaulay Rings with Linear Resolutions. Proceedings of the American Mathematical Society, 1992, 115, 51.                                       | 0.8 | 3         |
| 72 | Koszul homology of Cohen-Macaulay rings with linear resolutions. Proceedings of the American Mathematical Society, 1992, 115, 51-58.                                    | 0.8 | 3         |

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|----|--|-----|-----------|
| 73 | The dual of a constacyclic code, self dual, reversible constacyclic codes and constacyclic codes with complementary duals over finite local Frobenius non-chain rings with nilpotency index 3. Discrete Mathematics, 2019, 342, 2283-2296. | 0.7 | 3         |
| 74 | Generalized Hamming weights of projective Reed–Muller-type codes over graphs. Discrete Mathematics, 2020, 343, 111639.   | 0.7 | 3         |
| 75 | Joins, ears and Castelnuovo–Mumford regularity. Journal of Algebra, 2020, 560, 67-88.  | 0.7 | 3         |
| 76 | Direct products in projective Segre codes. Finite Fields and Their Applications, 2016, 39, 96-110.   | 1.0 | 2         |
| 77 | Vanishing Ideals over Finite Fields. Mathematical Notes, 2019, 105, 429-438.   | 0.4 | 2         |
| 78 | Rees algebras of complete bipartite graphs Matematica Contemporanea, 1999, 16, .   | 0.0 | 2         |
| 79 | Normalization of monomial ideals and Hilbert functions. Proceedings of the American Mathematical Society, 2008, 136, 1933-1943.  | 0.8 | 1         |
| 80 | Indices of normalization of ideals. Journal of Pure and Applied Algebra, 2019, 223, 3681-3694.   | 0.6 | 1         |
| 81 | Unmixed and Cohen–Macaulay Weighted Oriented Kőnig Graphs. Studia Scientiarum Mathematicarum<br>Hungarica, 2021, 58, 276-292.  | 0.1 | 1         |
| 82 | Regularity of the vanishing ideal over a parallel composition of paths. Journal of Commutative Algebra, 2020, $12$ , .   | 0.3 | 1         |
| 83 | Binomial vanishing ideals. Journal of Algebra Combinatorics Discrete Structures and Applications, 2015, 2, .   | 0.3 | 1         |
| 84 | Bounds for the minimum distance function. Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica, 2021, 29, 229-242.  | 0.3 | 1         |
| 85 | Monomial algebras and polyhedral geometry. Handbook of Algebra, 2003, , 257-314.   | 0.4 | 0         |
| 86 | Complete Intersection Vanishing Ideals on Sets of Clutter Type over Finite Fields. Bulletin of the Malaysian Mathematical Sciences Society, 2018, 41, 81-89.   | 0.9 | 0         |
| 87 | On the generalized Hamming weights of certain Reed–Muller-type codes. Analele Stiintifice Ale<br>Universitatii Ovidius Constanta, Seria Matematica, 2020, 28, 205-217.   | 0.3 | 0         |