

## Publication List of Dorin Popescu.

1. Quelques applications de la decomposition triangulaire, Publ. Dept. Math. Lyon 3-4 (1967), 63-68.
2. On the algebraic categories (with G.Georgescu), Rev Roum. Math.Pures et Appl., 13(1968),337-342.
3. Les faisceaux d'une theorie, C.R.Acad. Sc.Paris ,269(1969),380-382.
4. Sur les categories des  $(t,T)$ -faisceaux, C.R.Acad.Sc.Paris,269(1969), 413-415.
5. Deux extensions des ensembles preordonnes (with N.Manolache), Rev.Roum. Math.Pures et Appl.,15(1970),569-572.
6. Some remarks on complete cogenerated categories, Rev.Roum.Math.Pures et Appl.,15(1970), 1027-1033.
7. Monoconuri proiective si epiconuri inductive (in Romanian), Std. Cerc. Mat., 22 (1970), 641-647.
8. Categories de faisceaux, J. of Alg.,18(1971),343-365.
9. Les faisceaux d'une classe des morphismes, C.R. Acad.Sc.Paris, 272(1971), 101-103.
10. Cofaisceaux d'une categorie, C.R. Acad.Sc.Paris, 272(1971),299-302.
11. A strong approximation theorem over discrete valuation rings, Rev. Roum. Math. Pures et Appl., 20(1975), 659-692.
12. Die strenge Approximationseigenschaft lokaler Ringe (with G.Pfister), Inventiones Math. 30(1975),145-174.
13. Some algorithmic methods in the theory of local complete rings, Bull.Math. de la Soc. Math. de la Roumaine,22(70)no.1(1978),61-69.
14. Algebraically pure morphisms, Rev.Roum.Math.Pures et Appl.,24(1979), 947-977.
15. Die Approximation von Primidealen (with G.Pfister), Bull. de l'Acad. Polonaise Sci.,27(1979), 771-778.
16. A remark on two-dimensional local rings with the property of approximation, Math.Z.,173(1980), 235-240.
17. Approximation properties and existential completeness for ring morphisms (with S.Basarab, V.Nica), Manuscripta Math. 33(1981), 227-282.
18. On three dimensional local rings with the property of approximation (with G.Pfister), Rev.Roum.Math.Pures et Appl., 26(1981),301-307.
19. Some extensions of Neron's p-desingularization and approximation (with M.Cipu), Rev.Roum.Math.Pures et Appl.,26(1981),1299-1304.
20. Global form of Neron's p-desingularization and approximation, Proceedings "Week of Algebraic Geometry", Bucharest,June 30-July 6(1980), Teubner Texte Band 40,Leipzig 1981.
21. On Zariski's Uniformization Theorem, in Algebraic Geometry, Bucharest 1982, Proceedings, Springer Lect.Notes in Math., 1056, Berlin,1984.

22. Ultraproducts and big Cohen-Macaulay modules (with C.Mateescu), *Std. Cerc. Mat.*,36(1984), 424-428.
23. A desingularization theorem of Neron type (with M.Cipu), *Ann.Univ. Ferrara*, 30(1984), 63-76.
24. General Neron desingularization, *Nagoya Math. J.*,100(1985), 97-126.
25. A structure theorem on formally smooth morphisms in positive characteristic (with V.Nica), *J. of Alg.*,100(1986), 436-455.
26. Some structure theorems for valuation rings, *Rev. Roum. Math. Pures et Appl.* 31(1986), 577-582.
27. General Neron desingularization and Approximation, *Nagoya Math. J.*, 104 (1986), 85-115.
28. Artin approximation theory and applications, *Analele St. ale Univ. Iasi*, 31(1985 supliment),11-14.
29. A certain desingularization Theorem (with M.Cipu),*Analele St. ale Univ. Iasi*, 31(1985 supliment),20-22.
30. Ultraproducts and Hochster's modifications (with C.Mateescu), *Analele St. ale Univ. Iasi*, 31(1985 supliment),26-27.
31. On the structure of formally smooth morphisms (with V.Nica), *Analele St. ale Univ. Iasi*, 31(1985 supliment),33-34.
32. Algebraic extensions of valued fields, *J.of Alg.*, 108(1987), 513-533.
33. Algebrization of deformations of exceptional couples (with M.Roczen), *Rev. Roum.Math. Pure et Appl.*,33(1988),251-260.
34. Polynomial rings and their projective modules, *Nagoya Math. J.*,113(1989) ,121-128.
35. Flatness in non-Noetherian ring theory, *Rev.Roum.Math.Pures et Appl.*,34(1989), 839-854.
36. Immediate extensions of filtered rings (with W.Morariu), *Annali di Ferrara*, 35(1989),35-57.
37. Indecomposable Cohen-Macaulay modules and the Brauer-Thrall Conjectures, *Proceedings of the Algebra Conference 9-10 June 1988, Brasov*.
38. Indecomposable Cohen-Macaulay modules and irreducible maps (with M.Roczen) , *Compositio Math.* 76(1990), 277-294.
39. Letter to the Editor, General Neron desingularization and approximation, *Nagoya Math. J.*,118(1990),45-53.
40. Indecomposable Cohen-Macaulay modules and their multiplicities, *Trans., AMS.*, 323 (1991), 369-387.
41. The second Brauer-Thrall conjecture (with M.Roczen), *Manuscripta Math.* 71 (1991), 375-383.
42. Liftings of finite injective dimension modules, *Analele Univ.Bucuresti*, XL(1991), 65-75.

43. Indecomposable generalized Cohen-Macaulay modules (with M.Cipu, J.Herzog) , Trans AMS ,342(1994),107-136.
44. Relative liftings ,J of pure and Appl Alg., 108,n 3(1996),279-299.
45. Maximal Cohen-Macaulay modules over isolated singularities, J of Alg., 178(1995), 710-732.
46. Deformations of maximal Cohen-Macaulay modules (with G.Pfister),Math.Z., 223(1996),309-332
47. Maximal Cohen-Macaulay modules and their deformations, Analele Stiintifice Constanta, v II(1994), 112-119.
48. Thom-Sebastiani problems for maximal Cohen-Macaulay modules(with J.Herzog), Math.Ann., 309(1997),677-700.
49. Infinitesimal module deformations in the Thom-Sebastiani problem, (with F. Enescu and G.Pfister),Archiv der Math. 69, 1997,196-208.
50. Hibert functions and generic forms (with J.Herzog), Compositio Math. 113 (1998),1-22.
51. Maximal Cohen-Macaulay modules over singularities of type  $X^t + Y^3$  (with B.Martin and G.Pfister), Revue Roum. Math. Pures et Appl.,42, no 7-8 (1997), 591-619.
52. Special Cohen-Macaulay modules over singularities of type  $X^{3r} + Y^3$ , Analele Stiintifice Constanta,5 (2) (1997),112-119.
53. A family of Cohen-Macaulay modules over singularities of type  $X^t + Y^3$ , (with G.Pfister), Commun. in Alg., 27(6)(1999), 2555-2572.
54. Variations on Green Theorem concerning the Hilbert functions, in: “Commutative Algebra and Algebraic Geometry” editor F.Van Oystaeyen, Dekker Lect. Notes in Pure and Appl. Math. 206(1999), 237-244.
55. Steps in the classification of Cohen-Macaulay modules over singularities of type  $X^t + Y^3$  (with V. Ene), Algebras and Representation Theory,vol 2, no 2 (1999), 137-175.
56. Free resolutions for deformations of maximal Cohen-Macaulay modules, (with L. O’Carroll), Commun. in Alg., 28(11) (2000), 5329-5352.
57. On a Theorem of Knörrer concerning Cohen-Macaulay modules, (with L. O’Carroll), J. of Pure and Appl. Alg., 152(2000),293-302.
58. Betti numbers for  $p$ -stable ideals (with V.Ene and G.Pfister), Commun. in Alg., 28(3),(2000), 1515-1531.
59. Combinatorics in Algebra and Geometry, Italian Journal of Pure and Appl Math., no 7(2000), 27-32.
60. Variations on Néron desingularization, in: Sitzungsberichte der Berliner Mathematischen Gesselschaft, Berlin, 2001, 143-151.
61. Splitting syzygies (with L. O’Carroll), J. of Alg. 228(2000),682-709.
62. On the regularity of  $p$ -Borel ideals (with J.Herzog), Proceedings of Amer. Math. Soc., 129(2001), 2563-2570.

63. Betti numbers and the regularity of  $p$ -Borel ideals, *Bul. St. Univ. Pitesti, Ser. Mat.Inf.*, 5(2001),1-7.
64. Regularity of Rees algebras (with J.Herzog and N.V.Trung), *J. London Math. Soc.*, (2) 65, (2002), 320-338.
65. Explicit linear minimal free resolutions over a natural class of Rees algebras (with J.Herzog and L. O'Carroll), *Archiv Math.*, **81**, (2003), 636-645.
66. Maximal Cohen-Macaulay modules over  $Y_1^3 + \dots + Y_n^3$  with few generators (with R.Laza and L.O'Carroll), *Math. Reports* 3(53),2, (2001), 177-185.
67. Cohen-Macaulay representation, in *Algebra-Representation Theory*, Eds. K.W. Roggenkamp and M. Stefanescu, Kluwer, 2001, p. 249-256.
68. Maximal Cohen-Macaulay modules over the cone of an elliptic curve (with R. Laza, G. Pfister), *J. Alg.*, 253, (2002), 209-236.
69. Gröbner basis and depth of Rees algebras, *Anal. Univ. Ovidius, Constanta*, IX, (2001), 81-88.
70. On the Ext-modules of ideals of Borel type (with J. Herzog, M. Vladioiu), in *Commutative Algebra, Interactions with Algebraic Geometry*, Eds: L. Avramov et al, *Contemporary Math. Nr 331*, AMS, Providence, 2003, 171-186.
71. Rank one maximal Cohen-Macaulay modules over singularities of type  $Y_1^3 + Y_2^3 + Y_3^3 + Y_4^3$  (with V. Ene), in *Commutative Algebra, Singularities and Computer Algebra*, Eds: J. Herzog, V. Vuletescu, *NATO Science Series, Vol 115*, Kluwer Acad. Publ.,Dordrecht-Boston-London, 2003, 141-157.
72. Rank two maximal Cohen-Macaulay modules over singularities of type  $Y_1^3 + Y_2^3 + Y_3^3 + Y_4^3$  (with C. Baciuc, V. Ene, G. Pfister), *J. Alg.*, **292**, (2005), 447-491.
73. On a question of Quillen, *Bull. Math. Soc. Sci. Roum.*, Vol 45(93), no. 3-4 (2002), 209-212.
74. Finite filtrations of modules and shellable multicomplexes, (with J. Herzog), *Manuscripta Math.*, **121**, no 3, (2006), 385-410.
75. Extremal Betti numbers and regularity of Borel type ideals, *Bull Math. Soc. Sc. Roum. Vol 48(96)*, no 1,(2005)65-72.
76. Lifting an ideal from a tight Bourbaki sequence and maximal Cohen-Macaulay modules, in *NATO Science Series, Vol 196*, Kluwer Acad. Publ.,Dordrecht-Boston-London, Eds: G.Pfister, S. Cojocaru, V. Ufnarovski, 2005, 90-103.
77. Criteria for shellable multicomplexes,arXiv:math.AC/0505655, *Annalele St. Univ. Ovidius, Constanta*, **14(2)**, (2006), 73-84.
78. A monomial cycle basis of Koszul homology modules,arXiv:math.AC/0505656, *J. of Pure and Appl. Algebra*, 212 (2008),132-139.
79. The strong Lefschetz property and simple extensions, (with J. Herzog), arXiv:math.AC/0506537.
80. The strong Lefschetz property and certain complete intersection extensions, *Bull. Math. Soc. Sc. Math. Roumanie*, **48(96)**,no 4, (2005), 421-431.

81. Strong Lefschetz property on algebras of embedding dimension three, (with M. Vladoiu), *Bull. Math. Soc. Sc. Math. Roumanie*, **49(97)**,no 1, (2006), 75-86.
82. On the structure of MCM-modules over the ring  $K[[x, y]]/(x^n)$ , (with V. Ene), *Algebras and Representation Theory*, **11**, no 2, (2008), 191-205.
83. Binomial cycle basis on Koszul homology modules, *Communications in Algebra*,**36**, (2008), 1789-1800.
84. Sequentially Cohen-Macaulay monomial ideals of embedding dimension four, (with S. Ahmad), *Bull. Math. Soc. Sc. Math. Roumanie*, **50(98)**,no 2, (2007), 99-110.
85. Stanley conjecture in small embedding dimension, (with I. Anwar), *J. Algebra* **318**, (2007), 1027-1031.
86. Stanley depth of monomial ideals, in *Proceedings of the Sixth Congress of Romanian Mathematicians*, vol. I, 2007, 71-74, Ed. Academiei.
87. Stanley depth of multigraded modules, *Journal of Algebra* **321** (2009), 2782-2797.
88. An inequality between depth and Stanley depth, *Bull. Math. Soc. Sc. Math. Roumanie* **52(100)** (2009), 377-382.
89. Computing the Stanley depth (with Muhammad Qureshi), *Journal of Algebra*,**323** (2010), 2943-2959.
90. Stanley conjecture on intersection of four monomial prime ideals, *Communications in Alg.*, **41** (2013), 4351-4362, arXiv:1009.5646v1.
91. Bounds of Stanley depth, *An. St. Univ. Ovidius. Constanta*, 19(2),(2011), 187-194.
92. Stanley depth and size of a monomial ideal, (with J. Herzog and M. Vladoiu) , *Proceedings of AMS*, 140 (2012), 493-504, arXiv:AC/1011.6462v1
93. Graph and depth of a square free monomial ideal, *Proceedings of AMS*, **140** (2012), 3813-3822, arXiv:1104.5596v1, 2011.
94. Depth and minimal number of generators of square free monomial ideals, *An. St. Univ. Ovidius, Constanta*, 19(3), (2011), 163-166, arXiv:AC/1107.2621, 2011.
95. Depth of factors of square free monomial ideals, *Proceedings AMS*, **142** (2014), 1965-1972, arXiv:1110.1963, 2011.
96. Depth of a monomial ideal, in *Invited Contributions of the Seventh Congress of Romanian Mathematicians, Brasov, 2011*, Editors Lucian Beznea at al., (2013), 253-257.
97. Upper bounds of depth of monomial ideals, *J. Commutative Algebra*, **5**, 2013, 323-327, arxiv:AC/1206.3977, 2012.
98. Depth of some square free monomial ideals (with A. Zarojanu), *Bull. Math. Soc. Sc. Math. Roumanie*, **56(104)**, 2013,117-124.
99. Depth of some special monomial ideals,(with A. Zarojanu), *Bull. Math. Soc. Sci. Math. Roumanie*, **56(104)**, 2013, 365-368.
100. Three generated, squarefree, monomial ideals, (with A. Zarojanu), *Bull. Math. Soc. Sci. Math. Roumanie*, **58(106)**, (2015), no 3, 359-368, arXiv:AC/1307.8292v6.
101. Four generated, squarefree, monomial ideals, (with A. Popescu), 2013, in "Bridging Algebra, Geometry, and Topology", Editors Denis Ibadula, Willem Veys, Springer

- Proceed. in Math., and Statistics, **96**, 2014, 231-248, arXiv:AC/1309.4986v5.
102. Stanley depth on five generated, squarefree, monomial ideals, Bull. Math. Soc. Sci. Math. Roumanie, **59(107)**, (2016), no 1, 75-99, arXiv:AC/1312.0923v5.
103. Hilbert series and Lefschetz properties of dimension one almost complete intersections, (with A. Dimca), Communications in Alg., **44**, (2016), 4467-4482, arXiv:AG/14035921v2.
104. Stanley depth of monomial ideals, Bull. Math. Soc. Sci. Math. Roumanie, **58(106)**, (2015), no 1, 95-101, arXiv:AC/1404.6010.
105. Depth in a pathological case, Bull. Math. Soc. Sci. Math. Roumanie, **59(107)**, (2016), no 2, 187-195, arXiv:AC/1406.1398v6.
106. Around General Neron Desingularization, Journal of Algebra and its Applications **16**, No. 2 (2017), doi: 10.1142/S0219498817500724, arXiv:AC/1504.06938.
107. A method to compute the General Neron Desingularization in the frame of one dimensional local domains, (with A. Popescu), in "Singularities and Computer Algebra - Festschrift for Gert-Martin Greuel On the Occasion of his 70th Birthday", Editors Wolfram Decker, Gerhard Pfister, Mathias Schulze, Springer Monograph. 2017, 199-222, arXiv:AC/1508.05511.
108. Artin approximation property and the General Neron Desingularization, Revue Roum. Math. Pures et Appl., **62**, 2017, 171-189, arXiv:AC/1511.06967.
109. Constructive General Neron Desingularization for one dimensional local rings, (with G. Pfister), Journal of Symbolic Computation, **80**, (2017), 570-580, arXiv:AC/1512.08435v1.
110. Linear nested Artin approximation for algebraic power series, (with F. J. Castro-Jimenéz, G. Rond), Manuscripta Math. **158**, (2019), 55-73, arXiv:AC/1511.09275v4.
111. Construction of Neron Desingularization for Two Dimensional Rings, (with G. Pfister), arXiv:AC/1612.01827, to appear in Algorithmic and Experimental Methods in Algebra, Geometry, and Number Theory, G. Böckle et al. (eds.), Springer AG 2017, <https://doi.org/10.1007/978-3-319-70566-8-24>.
112. A Uniform General Neron Desingularization in Dimension One, J. of Algebra and Its Applications, **17**, (2018), (with A. Khalid and G. Pfister), DOI: 10.1142/S0219498818501050, arXiv:AC/1612.03416.
113. Nested Artin Strong Approximation Property, J. of Pure Algebra and Applications, **222 (4)**, (2018), 818-827, arXiv:AC/1701.09154, (with Z. Kosar).
114. Algorithms in the classical Neron Desingularization, Bull. Math. Soc. Sci. Math. Roumanie, **61(109)**, (2018), 73-83, arXiv:AC/1702.01445, (with A. Khalid and A. Popescu)
115. Constructive Neron Desingularization of algebras with big smooth locus, Communications in Algebra, **46**, (2018), 1902-1911, arXiv:AC/1702.01867, (with Z. Kosar and G. Pfister)
116. Remarks on Artin Approximation with constraints, Osaka J. Math. **56** (2019), 431-440, arXiv/AC:1707.08346, (2017) (with G. Rond).

117. Simple General Neron Desingularization in local  $\mathbb{Q}$ -algebras, *Communications in Algebra*, 47, (2019), 923 – 929, arXiv/AC:1802.05109,
118. On a question of Swan. With an appendix by Kestutis Cesnavicius, *Algebraic Geometry*, 6(6), (2019), 716-729, doi 10.14231/AG-2019-030 // arXiv/AC:1803.06956.
119. The Bass-Quillen Conjecture and Swan Question, submitted to *Combinatorial structures in algebra and geometry*, Editors Dumitru Stamate, Tomasz Szemberg, Springer Proceedings in Mathematics and Statistics Series, (2), partial in arXiv/AC:181000617v4
120. Néron desingularization on extension of valuation rings with an Appendix by Kestutis Cesnavicius, arXiv/AC:1910.09123.

### Monographs and textbooks.

1. Die Approximationseigenschaft lokaler Ringe (with H. Kurke, T. Mostowski, G.Pfister, M.Roczen), *Lect. Notes in Math.* 634(1978), Springer ,Berlin.
2. Henselian rings and Artin approximation property (in Romanian), (with V.Nica), Univ Bucharest Press ,1979.
3. Elements of finite group theory (in Romanian), (with C.Vraciu) Ed. Stiintifica Enciclopedica, Bucharest, 1986.
4. Artin approximation, in *Handbook of Algebra*, vol. 2, Ed. M.Hazewinkel, 2000 Elsevier Science, 321-356.
5. Artin Approximation, in *Encyclopaedia of Mathematics*, Supplement II, Ed. M. Hazewinkel, Kluwer Academic Publishers, 2000, 30-32.
6. Cohen-Macaulay rings (in Romanian), in *Seminar on Cohen-Macaulay rings and modules*, Ed. M. Stefanescu, Tip. Univ. of Iasi, 1986, Cap.IV.
7. Cohen-Macaulay modules and homological conjectures (in Romanian), in *Actual problems of mathematical research*, Tip. Univ. of Bucharest, 1992, 101-113.
8. Bounds for Betti numbers, in *Combinatorics in Algebra and Geometry*, Sem. Ser. in Math. Algebra: 2, Tip. Univ. Ovidius of Constanta, 1998, 65-70.
9. F-rational and strong F-rational rings, in *Tight closure*, Sem. Ser. Math., Tip. Univ. Ovidius of Constanta, 2001, 31-42.
10. Criptography, codes, algorithms, (in Romanian with C. Gherghe), Ed University of Bucharest, 2005.
11. Modern Algebra (in Romanian), in *Enciclopedie Matematica*, Editors: Marius Iosifescu, Octavian Stanasila, Dan Stefanoiu, AGIR (2010), 805-823.