



Anexa nr.3

AVIZAT,

Director SCOSAAR

Acad. Maria Zaharescu

AVIZAT,

Director ȘCOALA DOCTORALĂ MATEMATICĂ

1. Îndeplinirea standardelor IOSUD superioare standardelor minimale naționale* ☐ DA| ☐ NU

2. Îndeplinirea standardelor IOSUD egale standardelor minimale naționale* ☒ DA| ☐ NU

FIȘA DE ÎNDEPLINIRE A STANDARDELOR IOSUD DOMENIUL MATEMATICĂ

Candidat: Ichim Bogdan Nicolae

Lucrări: $S = 16.236 \geq 5$, $S_{\text{recent}} = 5.634 \geq 2.5$

Citări: $C \geq 60 \geq 12$

Data: 10.06.2026

Semnătura:

*se va alege una dintre variante



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Lista de îndeplinire a standardelor minimale articole

Nr. Crt.	Articol, Referința bibliografică	Publicat în ultimii 7 ani	s_i	n_i	$\frac{s_i}{n_i}$
1	W. Bruns and B. Ichim. Computations of volumes in five candidates elections. Scientific Reports 13 (2023), 13266.	DA	2.006	2	1.003
2	Bruns and B. Ichim. Polytope volume by descent in the face lattice and applications in social choice. Mathematical Programming Computation 13 (2021), 415 - 442.	DA	8.295	2	4.148
3	W. Bruns, B. Ichim and C. Söger. Computations of volumes and Ehrhart series in four candidates elections. Annals of Operations Research 280 (2019), 241 - 265.	DA	1.449	3	0.483
4	B. Ichim and J. J. Moyano-Fernandez. On the score sheets of a round-robin football tournament. Advances in Applied Mathematics 91 (2017), 24 - 43.	NU	1.639	2	0.820
5	B. Ichim, L. Katthän and J. J. Moyano-Fernández. Stanley depth and the lcm-lattice. Journal of Combinatorial Theory, Series A 150 (2017), 295 - 322.	NU	2.620	3	0.873
6	B. Ichim, L. Katthän and J. J. Moyano-Fernández. How to compute the Stanley depth of a module. Mathematics of Computation 86 (2017), 455 - 472.	NU	2.510	3	0.837
7	W. Bruns, B. Ichim and C. Söger. The power of pyramid decompositions in Normaliz. Journal of Symbolic Computation 74 (2016), 513 - 536.	NU	1.355	3	0.452
8	B. Ichim, L. Katthän and J. J. Moyano-Fernández. Lcm-lattices and Stanley depth: a first computational approach. Experimental Mathematics 25 (2016), 46 - 53.	NU	1.856	3	0.619



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9	B. Ichim, L. Katthän and J. J. Moyano-Fernández. The behavior of Stanley depth under polarization. <i>Journal of Combinatorial Theory, Series A</i> 135 (2015), 332 - 347.	NU	2.620	3	0.873
10	B. Ichim and A. Zarojanu. An algorithm for computing the multigraded Hilbert depth of a module. <i>Experimental Mathematics</i> 23 (2014), 322 - 331.	NU	1.856	2	0.928
11	B. Ichim and J. J. Moyano-Fernández. How to compute the multigraded Hilbert depth of a module. <i>Mathematische Nachrichten</i> 287 (2014), 1274 - 1287.	NU	1.396	2	0.698
12	W. Bruns, R. Hemmecke, B. Ichim, M. Köppe and C. Söger. Challenging computations of Hilbert bases of cones associated with algebraic statistics. <i>Experimental Mathematics</i> 20 (2011), 25 - 33.	NU	1.856	5	0.371
13	W. Bruns and B. Ichim. Normaliz: Algorithms for Affine Monoids and Rational Cones. <i>Journal of Algebra</i> 324 (2010), 1098 - 1113.	NU	1.642	2	0.821
14	B. Ichim and T. Römer. The canonical module of a toric face ring. <i>Nagoya Mathematical Journal</i> 194 (2009), 69 - 90.	NU	2.298	2	1.149
15	B. Ichim and T. Römer. On toric face rings. <i>Journal of Pure and Applied Algebra</i> 210 (2007), 249 - 266.	NU	1.633	2	0.817
16	W. Bruns and B. Ichim. On the coefficients of Hilbert quasipolynomials. <i>Proceedings of the American Mathematical Society</i> 135 (2007), 1305 - 1308.	NU	1.681	2	0.841
17	B. Ichim and U. Vetter. Koszul Bicomplexes and generalized Koszul complexes in projective dimension one. <i>Communications in Algebra</i> 34 (2006), 4131 - 4156.	NU	1.010	2	0.505
Total:		S=	16.236	S _{recent} =	5.634

Notă: Scorul Relativ de Influență a fost completat în conformitate cu Journal Citation Reports 2020, 2021, 2022, 2023, 2024 publicat de Thomson Reuters in 2021, 2022, 2023, 2024, 2025





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Lista de îndeplinire a standardelor minimale citări

Nr. Crt.	Articolul citat, referința bibliografică	Revista și articolul în care a fost citat	s_i
1	W. Bruns, B. Ichim and C. Söger. The power of pyramid decompositions in Normaliz. Journal of Symbolic Computation 74 (2016), 513 - 536.	F. Castillo, J. Labbé, J. Liebert, A. Padrol, E. Philippe and C. Schilling. An Effective Solution to Convex 1-Body N-Representability. Annales Henri Poincare 24 (2023), 2241 - 2321.	2.654
2		T. Gomes, C. O'Neill and E. Davila. Numerical Semigroups, Polyhedra, and Posets III: Minimal Presentations and Face Dimension. Electronic Journal of Combinatorics 30 (2023), P257.	1.531
3		C. Greub, H. Asatrian, F. Saturnino et al. Specific three-loop contributions to $b \rightarrow s\gamma$ associated with the current-current operators. Journal of High Energy Physics 2023 (2023), 201.	1.356
4		R. Jinno, G. Kälin, Z. Liu and H. Rubira. Machine learning Post-Minkowskian integrals. Journal of High Energy Physics 2023 (2023), 181.	1.356
5		B. Braun, K. Bruegge and M. Kahle. Facets of Random Symmetric Edge Polytopes, Degree Sequences, and Clustering. Discrete Mathematics & Theoretical Computer Science 25 (2023), 16.	1.011
6		D. Kahle, C. O'Neill and J. Sommars. A Computer Algebra System for R: Macaulay2 and the m2r Package. Journal of Statistical Software 93 (2020), 1 - 31.	14.45
7		D. Avis and C. Jordan. mplrs: A scalable parallel vertex/facet enumeration code. Mathematical Programming Computation 10 (2018), 267 - 302	8.295
8		S. Borowka, G. Heinrich, S. Jahn, S.P. Jones, M. Kerner, J. Schlenk and T. Zirke. pySecDec: A toolbox for the numerical evaluation of multi-scale integrals. Computer Physics Comm. 222 (2018), 313 - 326.	3.214
9		A. Bachle, A. Herman, A. Konovalov, L. Margolis and G. Singh. The Status of the Zassenhaus Conjecture for Small Groups. Experimental Mathematics 27 (2018), 431-436.	1.856





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10		M. Köppe and Y. Zhou. New computer-based search strategies for extreme functions of the Gomory – Johnson infinite group problem. Mathematical Programming Computation 9 (2017), 419 - 469.	8.295
11		B. Assarf, E. Gawrilow, K. Herr and M. Joswig. Computing convex hulls and counting integer points with polymake. Mathematical Programming Computation 9 (2017), 1 - 38.	8.295
12		F. Breuer and Z. Zafeirakopoulos. Polyhedral Omega: a New Algorithm for Solving Linear Diophantine Systems. Annals of Combinatorics 21 (2017), 211 - 280.	1.530
13		S. Borowka, G. Heinrich, S. Jones, M. Kerner, J. Schlenk and T. Zirke. SecDec-3.0: Numerical evaluation of multi-scale integrals beyond one loop. Computer Physics Communications 196 (2015), 470 - 491.	3.214
14		K. Herr, T. Rehn and A. Schurmann. On Lattice-Free Orbit Polytopes. Discrete & Computational Geometry 53 (2015), 144 - 172.	1.631
15		R. Kappl, H. Nilles and M. Schmitz. R symmetries and a heterotic MSSM. Nuclear Physics B 891 (2015), 482 - 498.	0.969
16	B. Ichim, L. Katthän and J. J. Moyano-Fernández. Stanley depth and the lcm-lattice. Journal of Combinatorial Theory, Series A 150 (2017), 295 - 322.	G. Loho and B. Smith. Face Posets of Tropical Polyhedra and Monomial Ideals. Electronic Journal of Combinatorics 30 (2023), P411.	1.531
17		M. Cimpoeas. Polarization and spreading of monomial ideals. Communications in Algebra 47 (2019), 5492 - 5508.	1.010
18	B. Ichim, L. Katthän and J. J. Moyano-Fernández. The behavior of Stanley depth under	F. Mohammadi, P. Pascual-Ortigosa, E. Sáenz-de-Cabezón and H. Wynn. Polarization and depolarization of monomial ideals with application to multi-state system reliability. Journal of Algebraic Combinatorics 51 (2020), 617 - 639.	1.720





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19	polarization. Journal of Combinatorial Theory, Series A 135 (2015), 332 - 347.	S. Fakhari. Symbolic powers of cover ideal of very well-covered and bipartite graphs. Proceedings of the American Mathematical Society 146 (2018), 97 - 110.	1.681
20		S. Fakhari. Depth and Stanley depth of symbolic powers of cover ideals of graphs. Journal of Algebra 492 (2017), 402 - 413.	1.642
21	B. Ichim and A. Zarojanu. An algorithm for computing the multigraded Hilbert depth of a module. Experimental Mathematics 23 (2014), 322 - 331.	M. Keller and S. Young. Combinatorial Reductions for the Stanley Depth of I and S/I . Electronic Journal of Combinatorics 24 (2017), P3.48.	1.531
22		A. M. Duval, B. Goeckner, C. J. Klivans and J. L. Martin. A non-partitionable Cohen-Macaulay simplicial complex. Advances in Mathematics 299 (2016), 381 - 395.	4.108
23		A. Popescu. An algorithm to compute the Hilbert depth. Journal of Symbolic Computation 66 (2015), 1 - 7.	1.255
24		L. Katthän. Stanley depth and simplicial spanning trees. Journal of Algebraic Combinatorics 42 (2015), 507 - 536.	1.720
25	W. Bruns and B. Ichim. Normaliz: Algorithms for Affine Monoids and Rational Cones. Journal of Algebra 324 (2010), 1098 - 1113.	Z. Zhang, Y. Zhao, Y. Yao, S. Yang. Hilbert band complexes and their applications. Physical Review B 111 (2025), 075154.	2.304
26		J. Gubeladze. Normal polytopes: between discrete, continuous, and random. Journal of Pure and Applied Algebra 227 (2023), 107187.	1.633
27		B. Desmorat, M. Olive, N. Auffray, R. Desmorat and B. Kolev. Computation of minimal covariants bases for 2D coupled constitutive laws. International Journal of Engineering Science 191 (2023), 103880.	3.824
28		D. Gangadharan. Numerical calculation of 3-pion Coulomb scattering using scalar QED. Physics Letters B 832 (2022), 137280.	2.729
29		M. Ziyue, H. Zhou, L. Zhiwu and G. Alessandro. Design of supervisors for linear marking specifications in labeled Petri nets. Automatica 136 (2022), 110031.	4.963





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30	C. Haase, A. Paffenholz, L. Piechnik and F. Santos. Existence of unimodular triangulations - positive results. <i>Memoirs of the American Mathematical Society</i> 270 (2021), 1321.	6.461
31	M. Vodicka. Normality of the Kimura 3-parameter model. <i>SIAM Journal on Discrete Mathematics</i> 35 (2021), 1536 - 1547.	2.260
32	S. Semenov and N. Zolotykh. How to find the convex hull of all integer points in a polyhedron? <i>Optimization Letters</i> 16 (2022), 2177 - 2189.	1.240
33	L. Seveso, D. Goyeneche and K. Życzkowski. Coarse-grained entanglement classification through orthogonal arrays. <i>Journal of Mathematical Physics</i> 59 (2018), 072203.	1.085
34	M. Olive. About Gordan's Algorithm for Binary Forms. <i>Foundations of Computational Mathematics</i> 17 (2017), 1407 - 1466.	6.245
35	M. Olive, B. Kolev and N. Auffray. A Minimal Integrity Basis for the Elasticity Tensor. <i>Archive for Rational Mechanics and Analysis</i> 226 (2017), 1 - 31	5.932
36	R. Kappl, H. Nilles, M. Schmitz. R symmetries and a heterotic MSSM. <i>Nuclear Physics B</i> 891 (2015), 482 - 498.	0.969
37	L. Van Langenhoven, W. Veys. Semigroup and Poincare series for a finite set of divisorial valuations. <i>Revista Matematica Complutense</i> 28 (2015), 191 - 225.	2.087
38	N. Ilten, L. Kastner. Calculating generators of multigraded algebras. <i>Journal of Symbolic Computation</i> 51 (2013), 22 - 33.	1.255
39	J. Moyano-Fernandez, J. Uliczka. Hilbert depth of graded modules over polynomial rings in two variables. <i>Journal of Algebra</i> 373 (2013), 130 - 152.	1.642
40	B. Burton, M. Ozlen. Computing the Crosscap Number of a Knot Using Integer Programming and Normal Surfaces. <i>ACM Transactions On Mathematical Software</i> 39 (2012), 4.	2.884





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41		R. Kappl, M. Ratz and C. Staudt. The Hilbert basis method for D-flat directions and the superpotential. <i>Journal of High Energy Physics</i> (2011), ar. 27.	1.356
42	B. Ichim and T. Römer. On toric face rings. <i>Journal of Pure and Applied Algebra</i> 210 (2007), 249 - 266.	O. Strahan. Content and Q-sequences in mixed characteristic local rings. <i>Journal of Algebra</i> 666 (2025), 633 - 656.	1.642
43		C. Berkesch, C. Chan, P. Klein, L. Matusevich, J. Page and J. Vassilev. Differential operators, retracts, and toric face rings. <i>Algebra & Number Theory</i> 17 (2023), 1959 - 1984.	3.463
44		J. Montaner, A. Boix and S. Zarzuela. On Some Local Cohomology Spectral Sequences. <i>International Mathematics Research Notices</i> 2020 (2020), 6197–6293.	2.706
45		K. Yanagawa. Dualizing complexes of seminormal affine semigroup rings and toric face rings. <i>Journal of Algebra</i> 425 (2015), 367 - 391.	1.642
46		N. Epstein, H. Nguyen. Algebra retracts and Stanley-Reisner rings. <i>Journal of Pure And Applied Algebra</i> 218 (2014), 1665 - 1682.	1.633
47		S. Casalaina-Martin, J. Kass, F. Viviani. The geometry and combinatorics of cographic toric face rings. <i>Algebra & Number Theory</i> 7 (2013), 1781 -1815.	3.463
48		H. Nguyen. Seminormality and local cohomology of toric face rings. <i>Journal of Algebra</i> 371 (2012), 536 - 553.	1.642
49		K. Yanagawa. Higher Cohen - Macaulay property of squarefree modules and simplicial posets. <i>Proceedings of the American Mathematical Society</i> 139 (2011), 3057 - 3066.	1.681
50	W. Bruns, R. Hemmecke, B. Ichim, M. Köppe and C. Söger. Challenging computations of Hilbert bases of cones	T. Romer and S. Madani. Retracts and algebraic properties of cut algebras. <i>European Journal of Combinatorics</i> 69 (2018), 214 - 236.	2.139
51		D. Bernstein and S. Sullivan. Normal Binary Hierarchical Models. <i>Experimental Mathematics</i> 26 (2017), 153 - 164.	1.856





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52	associated with algebraic statistics. Experimental Mathematics 20 (2011), 25 - 33.	J. Rauh, S. Sullivant. Lifting Markov bases and higher codimension toric fiber products. Journal of Symbolic Computation 74 (2015), 276 - 307.	1.255
53		G. Boffi and A. Logar. Computing Grobner bases of pure binomial ideals via submodules of Z_n . Journal of Symbolic Computation 47 (2012), 1297 - 1308.	1.255
54		R. Bouckaert, R. Hemmecke, S. Lindner and M. Studeny. Efficient Algorithms for Conditional Independence Inference. Journal of Machine Learning Research 11 (2010), 3453 - 3479.	6.372
55	W. Bruns and B. Ichim. On the coefficients of Hilbert quasipolynomials. Proceedings of the American Mathematical Society 135 (2007), 1305 - 1308.	F. Enescu and Y. Yao. Graded rings of rational twist in prime characteristic. Journal of Pure and Applied Algebra 228 (2024), 107691.	1.633
56		F. Enescu and Y. Yao. Graded rings of rational twist in prime characteristic. Journal of Pure and Applied Algebra 228 (2024), 107691.	1.633
57		C. Caviglia, M. Chardin, J. McCullough, I. Peeva and M. Varbaro. Regularity of prime ideals. Mathematische Zeitschrift 291 (2019), 421 - 435.	2.221
58		C. O'Neill. On factorization invariants and Hilbert functions, Journal of Pure and Applied Algebra 221 (2017), 3069 - 3088.	1.633
59		J. Jeffries, J. Montano. The j-multiplicity of monomial ideals. Mathematical Research Letters 20 (2013), 729 - 744.	2.337
60		J. Herzog, T. Puthenpurakal, J. Verma. Hilbert polynomials and powers of ideals. Mathematical Proceedings Of The Cambridge Philosophical Society 145 (2008), 623 - 642.	2.185
Total		C = 60	

Notă: Scorul Relativ de Influență a fost completat în conformitate cu Journal Citation Reports 2022, 20223, 2024 publicat de Thomson Reuters în 2023, 2024, 2025.

În acord cu baza de date Zentralblatt MATH, Bogdan Ichim avea în luna Iunie 2026 un numar de 179 citari la articolele publicate și un numar de 254 citari la pachetele software.

