

Relatório Técnico

Instituto Nacional de Ciência e Tecnologia de Matemática – INCTMat

Álgebra e Geometria Algébrica

Coordenadores: Abramos Hefez e Eduardo Esteves

Publicações:

C. Araujo - Identifying quadric bundle structures on complex projective varieties, *Geometriae Dedicata*, Volume 139, No. 1 (2009), 289-297.

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Trabalhos em Atas de Congressos:

A. Garcia e F. Torres - on unramified coverings of maximal curves, Proc. AGCT-10 CIRM, Luminy-Marseille, Séminaires & Congrès 21 (2009), 35-42.

A. Garcia e H. Stichtenoth – A note on a maximal Curve, Contemporary Math. 521 (2010), 55-58

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I. L. dos Santos e P.A. Zalesskii - The Bianchi group $\mathrm{PSL}_2(\mathcal{O}_3)$ is conjugacy separable. In: Groups, rings and group rings, 2009, Ubatuba. Contemporary Math, Vol. 499, pp. 199-204.

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Artigos Aceitos:

1. Garcia, C. Guneri e H. Stichtenoth - Generalization of the Gulietti – Korchmaros maximal curve, Advances in Geometry.
2. S. Collier - Foliations of multiprojective spaces and a conjecture of Bernstein and Lunts, Trans. Amer. Math. Soc.
3. S. Collier – A lost chapter in the pre-history of algebraic analysis: Whittaker on contact transformations, Arch. Hist. Exact Sci.

4. A. Hefez e M. E. Hernandez – The analytic classification of plane branches, Bull. London Math. Soc.
5. L. Bertinello e D. Levcovitz - Cyclic maximal ideals of rings of differential operators over power series rings, Commun. in Algebra.
6. E. Esteves e J. D. A. S. Cruz - Regularity of subschemes invariant under Pfaff fields on projective spaces, Commentarii Mathematici Helvetici.
7. E. Esteves e P. Nogueira - Generalized linear systems on curves and their Weierstrass points, Commun. in Algebra.
8. E. Esteves - Limits of Cartier divisors, Journal of Pure and Applied Algebra.
9. F. Cukierman, J. V. Pereira e I. Vainsencher - Stability of foliations induced by rational maps, Ann. Fac. Sciences Toulouse.
10. J. Coelho e M. Pacini - Abel maps for curves of compact type, Journal of Pure and Applied Algebra. Disponivel on-line Doi:10.1016/j.jpaa.2009.10.014.
11. M. Pacini - On Neron models of moduli spaces of theta characteristics, J. Algebra. Disponivel on-line Doi:10.1016/j.jalgebra.2009.11.005.
12. I. Kashuba e I. Shestakov - An estimate of the dimension of the varieties of alternative and Jordan algebras, Contemporary Math.
13. I. Kashuba, S. Ovsienko e I. Shestakov – Representation type of Jordan Algebras, Advances in Math.
14. V. M. Petrogradsky e I. Shestakov - Examples of self-iterating Lie algebras 2. J. of Lie Theory.
15. Grishkov e I. Shestakov I. - Commutative Moufang loops and alternative algebras, J. Algebra.
16. Shestakov e M. Zaicev - Polynomial identities of finite dimensional simple algebras, Commun. in Algebra.
17. V. M. Petrogradsky, I. P. Shestakov e. E. Zelmanov - Nil graded self-similar algebras, a collection of articles to the memory of Wilhelm Magnus, Groups Geometry and Dynamics..
18. Y. Bahturin, M. Bresar e I. Shestakov - Jordan gradings on associative algebras, Canadian Bull. of Math.

19. I. Shestakov - On speciality of Jordan brackets, Algebra and Discrete Mathematics.
20. D. H. Kochloukova, C. Martinez-Perez e B. Nucinkis - Centralizers of finite subgroups in soluble groups, Forum Mathematicum
21. R. Bieri, R. Geoghegan e D. H. Kochloukova - The Sigma invariants of the Thompson group F , Groups, Geometry, and Dynamics.
22. D. H. Kochloukova e P. Zalesskii - On pro- p analogues of limit groups via extensions of centralizers, Mathematische Zeitschrift.
23. F. Grunewald – P.A. Zalesskii – Genus for groups, J. Algebra.
24. L. Bartholdi, O. Seigenthaler e P. A. Zalesskii – The congruence subgroup problem for branch groups, Israel Journal of math.
25. J. R. J. Groves e D. H. Kochloukova- Nilpotent-by-Abelian Lie Algebras of Type FPM, Mathematical Proceedings of the Cambridge Philosophical Society.
26. Chaio, F.U. Coelho e S. Trepode - On the composite of three irreducible morphisms in the fourth power of the radical, Commun. Algebra.
27. F. U Coelho, D. Happel e L. Unger - Auslander generators of iterated tilted algebras, Proc. Amer. Math. Soc.
28. Dimitrov, D. Grantcharov e V. Futorny - Parabolic sets of roots, Contemporary Math.
29. A. Grishkov, A. Marco e A. Zubkov - Description of costandard modules for Schur superalgebras $S(2|1)$ in positive characteristic, Lin. and Multilinear Algebra.
30. A. Grishkov , Merlini e A. Zavarnistine – Classification of subalgebras of the algebra Cayley-Dickson $O(q)$, J. of Algebra and its Appl.
31. A. Grishkov, J. C. Gutierrez Fernandez, M.L.R Montoya e L.S.I. Murakami – Commutative power-associative algebra of nil-index four, Commun. Algebra.
32. Grishkov e M. Guerreiro - Simple Lie algebras of dimension seven over a field of characteristic 2, Sao Paulo J. of Math. Scienc.
33. A. Grishkov - Notes on simple Lie algebras over a field of characteristic 2, J. Algebra.

34. A. Grishkov e G. Nagy - Algebraic Bol loops, Forum Math.
35. A. Grishkov, V. Bovdi e S. Siciliano - Multiplicative bases of restricted enveloping algebras, Alg. and Representations.
36. A. Grishkov, A. Marco e A. Zubkov – Generators of supersymmetric polynomials in positive characteristic, J. Algebra.
37. P. Koshlukov, A. Krasilnikov e D. Silva - Graded identities for Lie álgebras, Contemporary. Math. Amer. Math. Soc.
38. D. Gonçalves e P. Koshlukov – A-identities for upper triangular matrices: a question of Henke and Regev, Israel Journal of Mathematics.
39. O. M. Di Vincenzo, P. Koshlukov e E. Santulo Jr. - Graded identities for tensor products of matrix (super)algebras over the Grassmann algebra, Linear Algebra Appl.
40. O. M. Di Vincenzo e P. Koshlukov – On the *-polynomial identities of $M_{(1,1)}(E)$, J. of Pure and Applied Algebra.
41. P. Koshlukov, A. Krasilnikov e E. A. da Silva - The central polynomials for the finite dimensional Grassmann álgebras, Algebra Discr. Math.
42. P. Koshlukov e M. Zaicev - Identities and isomorphisms of graded simple algebra, Linear Algebra Appl.
43. P. Koshlukov e D. D. Silva – 2-graded polynomial identities for the Jordan algebra of the symmetric matrices of order 2, Journal of Algebra.
44. S. Sidki e A. Brunner - Abelian state-closed subgroups of Automorphisms of m-ary trees, Groups, Geometry and Dynamics.
45. P. Shumyatsky - Commutators in residually finite groups, Israel Journal of Mathematics.
46. P. Shumyatsky - On the Fitting height of a finite group, Journal of Group Theory.
47. P. Shumyatsky e C. Sica - On groups admitting a fixed-point-free elementary 2-group of automorphisms, Commun. in Algebra.
48. P. Shumyatsky e J. Caldeira - Engel words and the restricted Burnside problem, Monatshefte für Mathematik.

49. M. Jardim e R.F. Leão – On the spectrum of the twisted Dolbeault Laplacian on line bundles over Kähler manifolds, Adv. In Appl. Clifford Algebras.
50. M. Jardim e D. M. Prata – Representations of quivers on abelian categories and vector bundles on projective varieties, São Paulo J. of Math. Sc.

Artigos Submetidos:

1. C. Araujo e A. -M. Castravet - Polarized minimal families of rational curves and higher Fano manifolds.
2. A. Garcia e N. Caro – On a tower of Ihara and its limit, Submetido a Acta Arithetica.
3. D. Avritzer, H.Lange e F.A. Ribeiro - Torsion-Free Sheaves on Nodal Curves and Triples. Submetido ao Boletim da SBM.
4. Kashuba; S. Ovsienko e I. Shestakov - Representation type of Jordan algebras. Submetido ao Advances in Mathematics.
5. Giambruno, I. Shestakov e M. Zaicev - Finite dimensional nonassociative algebras and codimension growth. Submetido a Advances in Applied Math.
6. Pozhidaev e I. Shestakov - Simple Noncommutative Jordan Superalgebras. Submetido ao Algebra and Logic.
7. V. Futorny e S. Ovsienko - Galois orders in skew monoid rings. Submetido ao J. Algebra.
8. V. Bekkert, Y. Drozd e V. Futorny - Tilting, deformations and representations of linear groups over Euclidean algebras. Submetido ao J. London Math. Soc.
9. G. Benkart, V. Bekkert, V. Futorny e I. Kashuba – New irreducible modules for Heisenberg and affine Lie algebras, J. Algebra.
10. V. Futorny, S. Ovsienko e M. Saorin – Torsion theories induced from commutative subalgebras, JPAA.
11. V. Futorny e S. Rao – Representations of loop Kac-Moody Lie algebras, J. Algebra.
12. A. Davydov e V. Futorny – Commutative algebras in Drinfeld categories of abelian Lie algebras, Proc. of Edinburgh Math. Soc.

13. V. Futorny e S. Ovsienko – Fibers of characters in Gelfand-Tsetlin categories, TAMS
 14. V. Futorny e J. Hartwig – Twisted Weyl algebras, crossed products and representations, TAMS
 15. Y. Billig e V. Futorny – Irreducible representations of Lie algebra of vector fields on a torus, TAMS
 16. V. Futorny e S. Ovsienko - Fibers of characters in Gelfand-Tsetlin categories. Submetido ao Math. Annalen.
 17. A. Grishkov e M. Guerreiro – Simple classical Lie álgebras in characteristic 2 and their graduations II.
 18. A. Grishkov e E. Loginov – Generalization of group with triality.
 19. A. Grishkov, L. Sabinina e P. Plaumann – Automorphic Moufang loops.
 20. A. Grishkov, D.A.S. Barros e P. Vojtechovskij – Commutative automorphic loops of order p^3 .
 21. M. Jardim e M. Correa Jr. – Bounds for sectional genera of varieties invariant under Pfaff fields, Proc. AMS.
 22. M. Jardim e R.V. Martins – The ADHM variety and perverse coherent sheaves, Math. Res. Let.
 23. M. Jardim e M. Verbitsky – Moduli spaces of framed instanton bundles and twistor sections of moduli spaces of instantons, Adv. Math.
 24. A. Pacheco e M. Hindry - An analogue of the Brauer-Siegel theorem for abelian varieties in positive characteristic.
- A. Pacheco, P. Zalesskii e K. F. Stevenson - Normal subgroup of the fundamental group of affine curves in positive characteristic II.

Trabalhos em Adandamento:

1. Hefez, M. E. Hernandez e A. G. Guimarães – Roots of Bernstein-Sato polynomials associated to an irreducible curve.
2. V. Bayer, A. Hefez e M. E. Hernandez – Tjurina number for reducible curves.
3. S. Collier - On some foliations arising from D-modules.

4. Vainsencher e V. Ferrer - Space of foliations with algebraic trajectories.
5. Vainsencher, A. Rodrigues e A. Maia - Surfaces containing lines.
6. E. Esteves e M. Pacini - The square maps for compactified Jacobians.
7. J. Coelho, E. Esteves e M. Pacini - Abel maps of degree 2.
8. I. Assem, F.U. Coelho e S. Trepode - The representation dimension of a class of tame álgebras.
9. M. Pcini – Recovering plane curves from their flex lines.

Pós-doutorados:

1. A. Pacheco - Aftab Pande, bolsa de pós-doc jr. do CNPq
2. C. Araujo - Nicolas Puignau, bolsa de pós-doc jr do CNPq. Atualmente é Professor Adjunto do Departamento de Matemática Aplicada da Universidade Federal do Rio de Janeiro (UFRJ).
3. E. Esteves - Francesco Nosedà (de Dezembro de 2007 até Julho de 2009) bolsa pós-doc do CNPq. Atualmente é Professor Adjunto do Departamento de Matemática Aplicada da Universidade Federal do Rio de Janeiro (UFRJ).
4. E. Esteves - Luis López (desde Novembro de 2009) bolsa pós-doc do CNPq
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6. I. Chestakov - Manuel Arenas (FAPESP), 01/03/2008 - 28/02/2009.
7. I. Chestakov - Eugeny Chibrikov (FAPESP), 01/07/2008 – 30/06/2009.
8. I. Chestakov - Juaci Picanço da Silva (UFPA), 2008 - 2009.
9. I. Shestakov – Maria Isabel Hernandez (México) bolsa CONECIT.
10. M. Jardim – Amar Abdelmouline Henni, bolsa FAPESP.

Livros:

1. D. Avritzer, L. Ein, E. Esteves, O. Garcia-Prada e X. Gomez-Mont (editores) - Geometriae Dedicata Vol. 139. no 1, April 2009, 335 páginas

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