

PUBLICATIONS

ALEXANDRU BUIUM

1. RESEARCH MONOGRAPHS

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- [2] Differential Algebraic Groups of Finite Dimension, Lecture Notes in Math. 1506, Springer 1992.
- [3] Differential Algebra and Diophantine Geometry, Hermann, Paris, 1994.
- [4] Arithmetic Differential Equations, Mathematical Surveys and Monographs 118, AMS, 2005.
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2. TEXTBOOKS

- [1] Mathematics: a Minimal Introduction, CRC Press, 2013.

3. PAPERS PUBLISHED

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- [3] Ritt schemes and torsion theory. Pacific J. Math. 98 (1982), no. 2, 281-293.
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- [5] Sur le nombre de Picard des revêtements doubles des surfaces algébriques, C. R. Acad. Sci. Paris Sér. I Math. 296 (1983), no. 8, 361-364.
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- [11] Corps de définition des variétés algébriques et théorie de Galois pour les corps différentiels, C. R. Acad. Sci. Paris Sr. I Math. 300 (1985), no. 18, 627-629.
- [12] A note on the class group of surfaces in 3-space. J. Pure Appl. Algebra 37 (1985), no. 3, 229-235.

- [13] Movable singularities and differential Galois theory. Proceedings of the conference on algebraic geometry (Berlin, 1985), 74-80, Teubner-Texte Math., 92, Teubner, Leipzig, 1986.
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- [15] (with Takeuchi, M.) Rigidity of maps from Hopf algebras to group algebras. *J. Algebra* 118 (1988), no. 1, 14-19.
- [16] Birational moduli and nonabelian cohomology. *Compositio Math.* 68 (1988), no. 2, 175-202.
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- [18] Dérivations sur les groupes algébriques, *C. R. Acad. Sci. Paris Sér. I Math.* 309 (1989), no. 9, 605-607.
- [19] Splitting differential algebraic groups. *J. Algebra* 130 (1990), no. 1, 97-105.
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- [77] (with Yu. I. Manin) Arithmetic differential equations of Painlevé VI type, in: *Arithmetic and Geometry*, London Mathematical Society Lecture Note Series: 420, L. Dieulefait, G. Faltings, D. R. Heath-Brown, Yu. V. Manin, B. Z. Moroz and J.-P. Wintenberger (eds), Cambridge University Press, 2015, pp. 114-138.
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4. PAPERS ACCEPTED FOR PUBLICATION

[87] Arithmetic analogues of Hamiltonian systems, submitted to a volume dedicated to Emma Previato; Cambridge University Press, arXiv:1805.09630, 2018.

5. PAPERS SUBMITTED FOR PUBLICATION

[88] Lie invariant Frobenius lifts and deformation of the Hasse polynomial, arXiv:-1805.09636, 2018, submitted to *Documenta Math.*

[89] (with L.E.Miller) Perfectoid spaces arising from arithmetic differential equations, arXiv:1911.00113 [math.NT], submitted to *Crelle J.*

[90] (with L.E.Miller) Solutions to arithmetic differential equations in algebraically closed fields, arXiv:1911.00112 [math.NT], submitted to *Advances in Math.*

6. PREPRINTS

[91] Arithmetic Levi-Civita connection, II: finite dimensional Lie algebras.

7. OTHER PUBLICATIONS

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