

# Publications de l'Institut de Mathématiques de Bourgogne 2016

## Articles dans des revues internationales ou nationales avec comité de lecture

1. T. Abe, D. Faenzi, and J. Vallès. Logarithmic bundles of deformed weyl arrangements of type  $a_2$ . *Bull. Soc. Math. France*, 144(4) :745–762, 2016.
2. H. Ahmed, R. Ushirobira, D. Efimov, and W. Perruquetti. Robust synchronization for multistable systems. *IEEE Trans. Automat. Control*, 61(6) :1625–1630, 2016.
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5. D. Arnal, B. Currey, and V. Oussa. Characterization of regularity for a connected Abelian action. *Monatsh. Math.*, 180(1) :1–37, 2016.
6. S. Bai, G. Izquierdo, and C. Klein. Numerical study of the kerr solution in rotating coordinates. *Phys. Rev. D*, 93 :124001, Jun 2016.
7. F. Beguin, C. Bonatti, and B. Yu. A spectral-like decomposition for transitive Anosov flows in dimension three. *Math. Z.*, 282(3-4) :889–912, 2016.
8. P. Bellingeri, B. A. Cisneros de la Cruz, and L. Paris. A simple solution to the word problem for virtual braid groups. *Pacific J. Math.*, 283(2) :271–287, 2016.
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12. M. Birem and C. Klein. Multidomain spectral method for Schrödinger equations. *Adv. Comput. Math.*, 42(2) :395–423, 2016.
13. M. Birem and C. Klein. Multidomain spectral method for schrödinger equations. *Advances in Computational Mathematics*, 42(2) :395–423, April 2016.
14. S. V. Bitseki Penda and A. Olivier. Autoregressive functions estimation in nonlinear bifurcating autoregressive models. *Statistical Inference for Stochastic Processes*, Jun 2016.
15. J. Bochi, C. Bonatti, and L. J. Díaz. Robust criterion for the existence of nonhyperbolic ergodic measures. *Comm. Math. Phys.*, 344(3) :751–795, 2016.
16. D. Bohnet and C. Bonatti. Partially hyperbolic diffeomorphisms with a uniformly compact center foliation : the quotient dynamics. *Ergodic Theory Dynam. Systems*, 36(4) :1067–1105, 2016.
17. C. Bonatti and S. Crovisier. Center manifolds for partially hyperbolic sets without strong unstable connections. *J. Inst. Math. Jussieu*, 15(4) :785–828, 2016.
18. C. Bonatti, S. Crovisier, L. J. Díaz, and A. Wilkinson. What is... a blender? *Notices Amer. Math. Soc.*, 63(10) :1175–1178, 2016.
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22. [J. Bouali](#). Motives of quadric bundles. *Manuscripta Math.*, 149(3-4) :347–368, 2016.
23. [A. Buryak](#) and [P. Rossi](#). Double ramification cycles and quantum integrable systems. *Lett. Math. Phys.*, 106(3) :289–317, 2016.
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25. [G. Casnati](#), [D. Faenzi](#), and [F. Malaspina](#). Moduli spaces of rank two aCM bundles on the Segre product of three projective lines. *J. Pure Appl. Algebra*, 220(4) :1554–1575, 2016.
26. [Z. Chen](#), [J.-B. Caillaud](#), and [Y. Chitour](#).  $L^1$ -minimization for mechanical systems. *SIAM J. Control Optim.*, 54(3) :1245–1265, 2016.
27. [D.-C. Cisinski](#) and [F. Déglise](#). étale motives. *Compos. Math.*, 152(3) :556–666, 2016.
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29. [M. Conforti](#), [A. Mussot](#), [A. Kudlinski](#), [S. Rota Nodari](#), [G. Dujardin](#), [S. De Bièvre](#), [A. Armaroli](#), and [S. Trillo](#). Heteroclinic structure of parametric resonance in the nonlinear schrödinger equation. *Phys. Rev. Lett.*, 117 :013901, Jun 2016.
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34. [A. Dubouloz](#). On the cancellation problem for algebraic tori. *Ann. Inst. Fourier*, 66(6) :2621–2640, 2016.
35. [A. Dubouloz](#) and [T. Kishimoto](#). Families of affine ruled surfaces : Existence of cylinders. *Nagoya Mathematical Journal*, 223(1) :1–20, 2016.
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38. [A. Dubouloz](#) and [P.-M. Poloni](#). Affine-ruled varieties without the Laurent cancellation property. *Bull. Lond. Math. Soc.*, 48(5) :822–834, 2016.
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44. [P. Gaillard](#) and [M. Gastineau](#). Patterns of deformations of peregrine breather of order 3 and 4, solutions to the nls equation with multi-parameters. *Journal of Theoretical and Applied Physics*, pages 1–7, 2016.
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54. [J. L. Jaramillo](#). An ocean drum : quasi-geostrophic energetics from a Riemann geometry perspective. *J. Phys. A*, 49(19) :194005, 30, 2016.
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64. [D. Levy-Bencheton](#), G. Niccoli, and V. Terras. Antiperiodic dynamical 6-vertex model by separation of variables II : functional equations and form factors. *J. Stat. Mech. Theory Exp.*, (3) :033110, 57, 2016.
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  73. P. Schauenburg. Frobenius-Schur indicators for some fusion categories associated to symmetric and alternating groups. *Algebr. Represent. Theory*, 19(3) :645–656, 2016.
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  75. J. Sjöstrand and G. Uhlmann. Local analytic regularity in the linearized Calderón problem. *Anal. PDE*, 9(3) :515–544, 2016.
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#### Articles publiés online ou en janvier 2017

- O-1 B. Audoux, P. Bellingeri, J.-B. Meilhan, and E. Wagner. Homotopy classification of ribbon tubes and welded string links. *ANNALI SCUOLA NORMALE SUPERIORE - CLASSE DI SCIENZE*, page 35 pages, 2017.
- O-2 H. Cardot and A. Godichon-Baggioni. Fast estimation of the median covariation matrix with application to online robust principal components analysis. *TEST*, Dec 2016.
- O-3 H. Cardot, C. Goga, and M. A. Shehzad. Calibration and partial calibration on principal components. *Statistica Sinica*, 27 :243–260, 2017.
- O-4 P. Cénac, A. Le Ny, B. de Loynes, and Y. Offret. Persistent random walks. i. recurrence versus transience. *Journal of Theoretical Probability*, Sep 2016 (Online).
- O-5 M. Deaconu and S. Herrmann. Simulation of hitting times for Bessel processes with non integer dimension. *Bernoulli journal*, May 2016 (Online).
- O-6 J. Frauendiener and C. Klein. Computational approach to compact riemann surfaces. *Nonlinearity*, 30(1) :138, 2017.
- O-7 A. Gadbled, A.-L. Thiel, and E. Wagner. Categorical action of the extended braid group of affine type a. *Communications in Contemporary Mathematics*, 0(0) :1650024, (2016) Online.
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- O-9 J. Ilg, A. Jebrane, A. Paquet, M. Rousseau, B. Dutray, L. Wolgensinger, and C. Clément. Evaluation of a french parent-training program in young children with autism spectrum disorder. *Psychologie Française*, Jan 2017.
- O-10 B.-M. Kohli. The links-gould invariant as a classical generalization of the alexander polynomial? *Experimental Mathematics*, 0(0) :0–0, Online 2016.

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### Ouvrages scientifiques (ou chapitres de ces ouvrages)

- L-1 L. Ambrosio and R. Ghezzi. Sobolev and bounded variation functions on metric measure spaces.
- L-2 P. Bettioli, B. Bonnard, L. Giraldi, P. Martinon, and J. Rouot. The Purcell Three-link swimmer : some geometric and numerical aspects related to periodic optimal controls. In *Variational methods in imaging and geometric control*, volume 18 of *Radon Series on Computational and Applied Mathematics*, ed. Maïtine Bergounioux, Gabriel Peyre, Christoph Schnörr, Jean-Baptiste Caillaud and Thomas Haberkorn, pages 328–357. 2016.
- L-3 J.-B. Caillaud and A. Farrés. On local optima in minimum time control of the restricted three-body problem. In *Recent advances in celestial and space mechanics*, volume 23 of *Math. Ind. (Tokyo)*, pages 209–302. Springer, Tokyo, 2016.
- L-4 F. Castel. Geometric representations of the braid groups. *Astérisque*, (378) :vi+175, 2016.
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- L-6 S. Dolecki and F. Mynard. *Convergence foundations of topology*. World Scientific Publishing Co. Pte. Ltd., Hackensack, NJ, 2016.
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### Proceedings

- P-1 B. Bonnard, M. Chyba, J. Rouot, and D. Takagi. A Numerical Approach to the Optimal Control and Efficiency of the Copepod Swimmer. In *55th IEEE Conference on Decision and Control - CDC*, Las Vegas, United States, Dec. 2016.
- P-2 B. Bonnard, J.-C. Faugère, A. Jacquemard, M. Safey El Din, and T. Verron. Determinantal sets, singularities and application to optimal control in medical imagery. In *International symposium on symbolic and algebraic computations*, pages 103–110, Waterloo, Canada, July 2016. ACM.
- P-3 B. Bonnard, A. Jacquemard, and J. Rouot. Optimal Control of an Ensemble of Bloch Equations with Applications in MRI. In *55th IEEE Conference on Decision and Control - CDC*, Las Vegas, United States, Dec. 2016.
- P-4 M. Conforti, A. Mussot, A. Kudlinski, S. Rota Nodari, G. Dujardin, S. De Bièvre, A. Armaroli, and S. Trillo. Heteroclinic structure of parametric resonance in fibers with periodic dispersion. In *Photonics and Fiber Technology 2016 (ACOFT, BGPP, NP)*, page NTh4A.2. Optical Society of America, 2016.
- P-5 A. Smirnov, V. Matveev, and Y. Gusman. Spectral curves for the simplest solutions of the nonlinear Schrödinger equation” (en russe). In *Proceedings of the M74 conference, St. Petersburg University of Aerospace Instrumentation : volume Modeling and situation control of quality of the complex systems*, pages 233– 239, St. Petersburg, Russie, 2016.
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### **Editions des ouvrages**

- E-1 B. Bonnard and M. Chyba, editors. *Recent Advances in Celestial and Space Mechanics*. Number 23 in Mathematics for Industry. Springer, 2016.
- E-2 V. W. Guillemin and J. Sjostrand, editors. *Louis Boutet de Monvel, Selected Works*. Contemporary Mathematicians. Birkhäuser, Basel, 2017.
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