

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.
3. S. Albac, A. Schmitz, C. Lopez-Alayon, C. d'Enfert, M. Sautour, A. Ducreux, C. Labruère-Chazal, M. Laue, G. Holland, A. Bonnin, and et al. Candida albicans able to use m cells as a portal of entry across the intestinal barrier in vitro. *Cellular Microbiology*, 18(2) :195–210, Feb. 2016.
4. S. Alvarez. Harmonic measures and the foliated geodesic flow for foliations with negatively curved leaves. *Ergodic Theory Dynam. Systems*, 36(2) :355–374, 2016.
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.
9. A. Benbernou, N. Boussekkine, N. Mecherout, T. Ramond, and J. Sjöstrand. Non-real eigenvalues for \mathcal{PT} -symmetric double wells. *Lett. Math. Phys.*, 106(12) :1817–1835, 2016.
10. M. Bernardara, M. Bolognesi, and D. Faenzi. Homological projective duality for determinantal varieties. *Adv. Math.*, 296 :181–209, 2016.
11. M. A. Bertolim, A. Jacquemard, and G. Vago. Integration of a Dirac comb and the Bernoulli polynomials. *Bull. Sci. Math.*, 140(2) :119–139, 2016.
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.
19. C. Bonatti and H. Eynard-Bontemps. Connectedness of the space of smooth actions of \mathbb{Z}^n on the interval. *Ergodic Theory Dynam. Systems*, 36(7) :2076–2106, 2016.
20. C. Bonatti, A. Gogolev, and R. Potrie. Anomalous partially hyperbolic diffeomorphisms II : stably ergodic examples. *Invent. Math.*, 206(3) :801–836, 2016.
21. C. Bonatti, K. Parwani, and R. Potrie. Anomalous partially hyperbolic diffeomorphisms I : dynamically coherent examples. *Ann. Scient. Éc. Norm. Sup. 4e série*, 49(6) :1387–1402, 2016.

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.
24. A. Buryak and P. Rossi. Recursion relations for double ramification hierarchies. *Comm. Math. Phys.*, 342(2) :533–568, 2016.
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.
28. T. Combet. Integrable planar homogeneous potentials of degree -1 with small eigenvalues (les potentiels intégrables homogènes de degré -1 du plan avec petites valeurs propres). *Ann. Inst. Fourier*, 66(6) :2253–2298, 2016.
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.
30. R. Correa, A. Hantoute, and A. Jourani. Characterizations of convex approximate sub-differential calculus in Banach spaces. *Trans. Amer. Math. Soc.*, 368(7) :4831–4854, 2016.
31. G. Dito, G. Lebeau, and P. Schapira. Foreword [Special issue : Topics in micro-local analysis—in memory of Louis Boutet de Monvel]. *Lett. Math. Phys.*, 106(12) :1617, 2016.
32. S. Dolecki. Completeness number of families of subsets of convergence spaces. *Topology and its Applications*, 200 :133 – 145, 2016. Workshop : Aspects of Contemporary Topology V.
33. S. Dolecki. Polarities and generalized extremal convolutions. *J. Convex Anal.*, 23(2) :603–614, 2016.
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.
36. A. Dubouloz and A. Liendo. Rationally integrable vector fields and rational additive group actions. *Internat. J. Math.*, 27(8) :1650060, 19, 2016.
37. A. Dubouloz and F. Mangolte. Real frontiers of fake planes. *Eur. J. Math.*, 2(1) :140–168, 2016.
38. A. Dubouloz and P.-M. Poloni. Affine-ruled varieties without the Laurent cancellation property. *Bull. Lond. Math. Soc.*, 48(5) :822–834, 2016.
39. B. Dubrovin, T. Grava, and C. Klein. On critical behaviour in generalized Kadomtsev-Petviashvili equations. *Phys. D*, 333 :157–170, 2016.
40. M. Dugave, F. Göhmann, K. K. Kozłowski, and J. Suzuki. Asymptotics of correlation functions of the Heisenberg-Ising chain in the easy-axis regime. *J. Phys. A*, 49(7) :07LT01, 11, 2016.
41. P. Gaillard. Fredholm and Wronskian representations of solutions to the KPI equation and multi-rogue waves. *J. Math. Phys.*, 57(6) :063505, 12, 2016.
42. P. Gaillard. Rational solutions to the KPI equation and multi rogue waves. *Ann. Physics*, 367 :1–5, 2016.
43. P. Gaillard. Toward a classification of quasirational solutions of the nonlinear schrödinger equation. *Theoretical and Mathematical Physics*, 189(1) :1440–1449, 2016.
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.
45. P. Gaillard and M. Gastineau. Twenty parameters families of solutions to the NLS equation and the eleventh Peregrine breather. *Commun. Theor. Phys. (Beijing)*, 65(2) :136–144, 2016.

46. P. Gaillard and M. Gastineau. Twenty two parameter deformations of the twelfth peregrine breather solutions to the nls equation. *Advances in Research*, 7(2) :1–11, Jan 2016.
47. R. Garcia, R. Langevin, and P. Walczak. Darboux curves on surfaces II. *Bull. Braz. Math. Soc. (N.S.)*, 47(4) :1119–1154, 2016.
48. A. Godichon-Baggioni. Estimating the geometric median in Hilbert spaces with stochastic gradient algorithms : L^p and almost sure rates of convergence. *J. Multivariate Anal.*, 146 :209–222, 2016.
49. T. Grava, C. Klein, and J. Eggers. Shock formation in the dispersionless Kadomtsev-Petviashvili equation. *Nonlinearity*, 29(4) :1384–1416, 2016.
50. S. Herrmann and E. Tanré. The first-passage time of the Brownian motion to a curved boundary : an algorithmic approach. *SIAM J. Sci. Comput.*, 38(1) :A196–A215, 2016.
51. S. Herrmann and J. Tugaut. Mean-field limit versus small-noise limit for some interacting particle systems. *Communications on Stochastic Analysis*, 10(1) :39–55, 2016.
52. J. Ilg, A. Jebrane, B. Dutray, L. Wolgensinger, M. Rousseau, A. Paquet, and C. Clément. Évaluation d’un programme francophone de formation aux habiletés parentales dans le cadre des troubles du spectre de l’autisme auprès d’un groupe pilote. *Annales Médico-psychologiques, revue psychiatrique*, Jul 2016.
53. A. R. Its and K. K. Kozłowski. Large- x analysis of an operator-valued Riemann-Hilbert problem. *Int. Math. Res. Not. IMRN*, (6) :1776–1806, 2016.
54. J. L. Jaramillo. An ocean drum : quasi-geostrophic energetics from a Riemann geometry perspective. *J. Phys. A*, 49(19) :194005, 30, 2016.
55. H. Jardón-Kojakhmetov, H. W. Broer, and R. Roussarie. Analysis of a slow-fast system near a cusp singularity. *J. Differential Equations*, 260(4) :3785–3843, 2016.
56. A. Jourani, L. Thibault, and D. Zagrodny. The NSLUC property and Klee envelope. *Math. Ann.*, 365(3-4) :923–967, 2016.
57. A. Jourani and E. Vilches. Positively α -far sets and existence results for generalized perturbed sweeping processes. *J. Convex Anal.*, 23(3) :775–821, 2016.
58. V. Kazakov, S. Leurent, and D. Volin. T-system on t-hook : Grassmannian solution and twisted quantum spectral curve. *Journal of High Energy Physics*, 2016(12), Dec 2016.
59. M. Keilberg and P. Schauenburg. On tensor factorizations of Hopf algebras. *Algebra Number Theory*, 10(1) :61–87, 2016.
60. M. Khristoforov, V. Kleptsyn, and M. Triestino. Stationary random metrics on hierarchical graphs via (min, +)-type recursive distributional equations. *Comm. Math. Phys.*, 345(1) :1–76, 2016.
61. N. Kitanine, J. M. Maillet, G. Niccoli, and V. Terras. On determinant representations of scalar products and form factors in the SoV approach : the XXX case. *J. Phys. A*, 49(10) :104002, 42, 2016.
62. B.-M. Kohli. On the Links-Gould invariant and the square of the Alexander polynomial. *J. Knot Theory Ramifications*, 25(2) :1650006, 25, 2016.
63. K. Langlois and R. Terpereau. On the geometry of normal horospherical G -varieties of complexity one. *J. Lie Theory*, 26(1) :49–78, 2016.
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.
65. P. Mardesic, D. Marín, M. Saavedra, and J. Villadelprat. Unfoldings of saddle-nodes and their Dulac time. *J. Differential Equations*, 261(11) :6411–6436, 2016.
66. P. Mardesic, M. Resman, J.-P. Rolin, and V. Zupanovic. Normal forms and embeddings for power-log transseries. *Advances in Mathematics*, 303 :888 – 953, 2016.
67. V. B. Matveev and A. O. Smirnov. Solutions of the Ablowitz–Kaup–Newell–Segur hierarchy equations of the “rogue wave” type : A unified approach. *Theoretical and Mathematical Physics*, 186(2) :156–182, 2016.

68. N. Mecherout, N. Boussekkine, T. Ramond, and J. Sjöstrand. \mathcal{PT} -symmetry and Schrödinger operators. The double well case. *Math. Nachr.*, 289(7) :854–887, 2016.
 69. C. Petitjean. Automorphism groups of Koras-Russell threefolds of the second kind. *Beitr. Algebra Geom.*, 57(3) :599–605, 2016.
 70. P. Roitman and H. Le Ferrand. The strange case of Paul Appell’s last memoir on Monge’s problem : “sur les déblais et remblais”. *Historia Math.*, 43(3) :288–309, 2016.
 71. P. Schauenburg. Computing higher Frobenius-Schur indicators in fusion categories constructed from inclusions of finite groups. *Pacific J. Math.*, 280(1) :177–201, 2016.
 72. P. Schauenburg. Erratum to : A higher frobenius-schur indicator formula for group-theoretical fusion categories. *Communications in Mathematical Physics*, pages 1–4, 2016.
 73. P. Schauenburg. Frobenius-Schur indicators for some fusion categories associated to symmetric and alternating groups. *Algebr. Represent. Theory*, 19(3) :645–656, 2016.
 74. P. Schauenburg. A note on the restricted universal enveloping algebra of a restricted Lie-Rinehart algebra. *Bull. Belg. Math. Soc. Simon Stevin*, 23(5) :769–777, 12 2016.
 75. J. Sjöstrand and G. Uhlmann. Local analytic regularity in the linearized Calderón problem. *Anal. PDE*, 9(3) :515–544, 2016.
 76. J. Sjöstrand and M. Vogel. Large bidiagonal matrices and random perturbations. *Journal of Spectral Theory*, 6(4) :977–1020, 2016.
 77. R. Ushirobira, W. Perruquetti, and M. Mboup. An algebraic continuous time parameter estimation for a sum of sinusoidal waveform signals. *International Journal of Adaptive Control and Signal Processing*, 30(12) :1689–1713, 2016. acs.2688.
 78. S. Vaïter, C. Deledalle, J. Fadili, G. Peyré, and C. Dossal. The degrees of freedom of partly smooth regularizers. *Annals of the Institute of Statistical Mathematics*, pages 1–42, 2016.
-

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.
- O-8 R. Garcia, P. Walczak, and R. Langevin. Darboux curves on surfaces I. *Journal of Mathematical society of Japan*, 69(1) :1–24, 2017.
- 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.

- O-11 K. Langlois and R. Terpereau. The Cox ring of a complexity-one horospherical variety. *Archiv der Mathematik*, 108(1) :17–27, 2017.
- O-12 L. Van Damme, P. Mardesic, and D. Sugny. The tennis racket effect in a three-dimensional rigid body. *Physica D : Nonlinear Phenomena*, 338 :17 – 25, 2017.
-

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.
- L-5 T. Combati. Integrability and non integrability of some n body problems. In *Recent advances in celestial and space mechanics*, volume 23 of *Math. Ind. (Tokyo)*, pages 1–30. Springer, Tokyo, 2016.
- L-6 S. Dolecki and F. Mynard. *Convergence foundations of topology*. World Scientific Publishing Co. Pte. Ltd., Hackensack, NJ, 2016.
- L-7 R. Langevin. *Integral geometry from Buffon to geometers of today*. Cours spécialisés 23, Collection SMF, 2016.
- L-8 P. Mardešić, D. Sugny, and L. Van Damme. *Abelian Integrals : From the Tangential 16th Hilbert Problem to the Spherical Pendulum*, pages 327–346. Springer International Publishing, Cham, 2016.

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.
-

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.
-