

May 7, 2023

### **Prépublications**

1. B. Colbois, C. Léna, L. Provenzano, A. Savo; Geometric bounds for the magnetic Neumann eigenvalues in the plane; arXiv:2305.02686
2. B. Colbois, A. Girouard, C. Gordon, D. Sher; Some recent developments on the Steklov eigenvalue problem; arXiv:2212.12528
3. B. Colbois, A. Girouard; Metric upper bounds for Steklov and Laplace eigenvalues; arXiv:2108.03101 ; submitted

### **Publications dans des revues avec referees**

4. B. Colbois, L. Provenzano, A. Savo; Isoperimetric inequalities for the first Aharonov-Bohm eigenvalue of the Neumann and Steklov problems; J. of Geometric Analysis 32:285 (2022).
5. B. Colbois, A. El Soufi, S. Ilias, A. Savo; Eigenvalues upper bounds for the magnetic Schrödinger operator, Communications in Analysis and Geometry, Vol. 30, No. 4 (2022), pp. 779-814.
6. B. Colbois, L. Provenzano; Neumann eigenvalues of the biharmonic operator on domains: geometric bounds and related results; J. of Geometric Analysis 32 N. 8, Article number: 218 (2022);
7. B. Colbois, L. Provenzano; Conformal upper bounds for the eigenvalues of the p-Laplacian; Journal of the London Mathematical Society 104 N. 5 (2021) 2128-2147.
8. B. Colbois, K. Gittins; Upper bounds for Steklov eigenvalues of submanifolds in Euclidean space via the intersection index; Differential Geom. Appl. 78 (2021), Paper No. 101777, 21 pp
9. B. Colbois, S. Verma; Sharp Steklov upper bound for submanifolds of revolution; J. of Geometric Analysis; Vol. 31, n.11 (2021) 11214-11225.

10. B. Colbois, A. Savo; Lower bounds for the first eigenvalue of the Laplacian with zero magnetic field in planar domains; *Journal of Functional Analysis* 60, (2021) 1-33.
11. B. Colbois, A. Savo; Upper bounds for the ground state energy of the Laplacian with zero magnetic field on planar domains; *Annals of Global Analysis and Geometry*; Vol 6 (2021) n.1 1-18.
12. B. Colbois, A. Girouard, A. Hassannezhad; The Steklov and Laplacian spectra of Riemannian manifolds with boundary; *Journal of Functional Analysis* 278 (6):108409, (2020).
13. B. Colbois, A. Girouard, A. Métras; Hypersurfaces with small Steklov eigenvalues, *Canadian Mathematical Bulletin* 63 (1) (2020) 46-57.
14. B. Colbois, A. El Soufi, A. Girouard; Compact manifolds with fixed boundary and large Steklov eigenvalues, *Proc. Amer. Math. Soc.*, Vol 147, N.9 (2019) 3813-3827.
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16. B. Colbois, A. El Soufi; Spectrum of the Laplacian with weights, *Annals Global Analysis and Geometry*, Vol 55 (2019) no.2, 149-180.
17. B. Colbois, A. Girouard, B. Raveendran; The Steklov spectrum and coarse discretizations of manifolds with boundary, *Pure and Applied Mathematics Quarterly*, Volume 14, Number 2, 357-392, (2018).
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19. B. Colbois, L. Provenzano; Eigenvalues of elliptic operators with density, *Calc. Var. Partial Differential Equations* 57 (2018), no. 2, 57:36.
20. B. Colbois, A. El Soufi, A. Savo; Eigenvalues of the Laplacian on a compact manifold with density, *Communications in Analysis and Geometry*, Vol.23, N. 3 (2015) 639-670.
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### **Compte-rendus de conférences, articles d'exposition**

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