

Liste de publications :

- [1] Precise counting results for closed orbits of Anosov flows. *Ann. Sci. École Norm. Sup.*(4) 33 (2000), no. 1, 33–56.
- [2] Counting geodesics which are optimal in homology. *Ergodic Theory Dynam. Systems* 23 (2003), no. 2, 353–388.
- [3] On the zero-temperature or vanishing viscosity limit for certain Markov processes arising from Lagrangian dynamics. *J. Eur. Math. Soc. (JEMS)* 6 (2004), no. 2, 207–276.
- [4] (avec R. Iturriaga, P. Padilla, H. Sanchez) Physical solutions of the Hamilton-Jacobi equation. *Discrete Contin. Dyn. Syst.Ser. B* 5 (2005), no. 3, 513–528.
- [5] Entropy and the localization of eigenfunctions. *Ann. of Math.*(2) 168 (2008), no. 2, 435–475.
- [6] (avec S. Nonnenmacher) Entropy of semiclassical measures of the Walsh-quantized baker’s map. *Ann. Henri Poincaré* 8 (2007), no. 1, 37–74.
- [7] (avec S. Nonnenmacher) Half-delocalization of the eigenfunctions for the Laplacian on an Anosov manifold. *Ann. Instit. Fourier* 57 (2007), no. 7, 2465–2523.
- [8] (avec S. Zelditch) Patterson-Sullivan distributions and quantum ergodicity. *Ann. Henri Poincaré* 8 (2007), no. 2, 361–426. AHP Distinguished paper awards.
- [9] Spectral deviations for the damped wave equation, *Geom. Funct. Anal.* 20 (2010), no. 3, 593–626.
- [10] (avec S. Nonnenmacher) Vibrations chaotiques et grosses balafres, *Gazette des mathématiciens*, SMF, Janvier 2009.
- [11] (avec S. Zelditch) Intertwining the geodesic flow and the Schrödinger group on hyperbolic surfaces, *Math. Ann.* 353 (2012), no. 4, 1103–1156.
- [12] (avec L. Silberman) A Haar component for quantum limits on locally symmetric spaces, *Israel J. Math.* 195 (2013), no. 1, 393–447
- [13] (avec G. Rivière) Dispersion and controllability for the Schrödinger equation on negatively curved manifolds, *Anal. PDE* 5 (2012), no. 2, 313–338.
- [14] Exponential decay for products of Fourier integral operators, *Methods Appl. Anal.* 18 (2011), no. 2, 165–181.
- [15] (avec F. Macià) Semiclassical measures for the Schrödinger equation on the torus, *J. Eur. Math. Soc. (JEMS)* 16 (2014), no. 6, 1253–1288.

- [16] (avec M. Léautaud and S. Nonnenmacher) Sharp polynomial decay rates for the damped wave equation on the torus. *Anal. PDE* 7 (2014), no. 1, 159–214.
- [17] (avec F. Macià and C. Fermanian-Kammerer) Semiclassical completely integrable systems: long-time dynamics and observability via two-microlocal Wigner measures. *Amer. J. Math.* 137 (2015), no. 3, 577–638.
- [18] (avec É. Le Masson) Quantum ergodicity on large regular graphs, *Duke Math. J.* 164 (2015), no. 4, 723–765.
- [19] (avec F. Macià and M. Léautaud) Delocalization of quasimodes on the disk. *C. R. Math. Acad. Sci. Paris* 354 (2016), no. 3, 257–263.
- [20] (avec F. Macià and M. Léautaud) Wigner measures and observability for the Schrödinger equation on the disk. *Invent. Math.* 206 (2016), no. 2, 485–599.
- [21] Quantum Ergodicity on Regular Graphs. *Comm. Math. Phys.* 353 (2017), no. 2, 633–690.
- [22] (avec M. Sabri) Poisson kernel expansions for Schrödinger operators on trees, 2016, *Journal of Spectral Theory*, vol. 9, pp. 243–268, 2019.
- [23] Some relations between the spectra of simple and non-backtracking random walks, 2017.
- [24] (avec M. Sabri) Quantum ergodicity for the Anderson model on regular graphs, *J. Math. Phys.* 58, (2017).
- [25] (avec M. Sabri) Quantum Ergodicity on Graphs : from Spectral to Spatial Delocalization, *Ann. of Math.*, vol. 189, pp. 753–835, 2019.
- [26] (avec M. Sabri) Recent results of quantum ergodicity on graphs and further investigation, *Ann. Fac. Sci. Toulouse Math.*, vol. 28, issue 3, pp. 559–592, 2019.
- [27] (avec M. Ingremeau, M. Sabri, B. Winn) Absolutely continuous spectrum for quantum trees, *Comm. Math. Phys.* vol. 383, pp. 537–594, 2021.
- [28] (avec M. Ingremeau, M. Sabri, B. Winn) Empirical spectral measures of quantum graphs in the Benjamini-Schramm limit, *J. Funct. Anal.* vol. 280, 2021
- [29] (avec M. Ingremeau, M. Sabri, B. Winn) Quantum ergodicity for expanding quantum graphs in the regime of spectral delocalization, *J. Math. Pures Appl.* vol. 151, pp. 28–98, 2021
- [30] (avec L. Monk) A high-genus asymptotic expansion of Weil-Petersson volume polynomials, *Journal Math. Phys.* vol. 63, 2022.

◇ Articles de survol, comptes-rendus de conférences, notes de cours :

[31] (avec S. Nonnenmacher et H. Koch) Entropy of eigenfunctions, *New trends in Mathematical Physics, Proceedings of ICMP 2006*.

[32] Eigenfunctions of the laplacian on negatively curved manifolds : a semiclassical approach, *Homogeneous flows, moduli spaces and arithmetic*, 389–438, *Clay Math. Proc.*, 10, Amer. Math. Soc., Providence, RI, 2010.

[33] A hyperbolic dispersion estimate, with applications to the linear Schrödinger equation, *Proceedings of the International Congress of Mathematicians. Volume III, 1839–1861*, Hindustan Book Agency, New Delhi, 2010.

[34] (avec F. Macià) The dynamics of the Schrödinger flow from the point of view of semiclassical measures, *Spectral geometry*, 93–116, *Proc. Sympos. Pure Math.*, 84, Amer. Math. Soc., Providence, RI, 2012.

[35] Le théorème d’ergodicité quantique. *Chaos en mécanique quantique*, 101–146, Ed. Ec. Polytech., Palaiseau, 2014.

[36] Topologie des hypersurfaces nodales de fonctions aléatoires gaussiennes, *Séminaire Bourbaki 1116*, 2016.

[37] Quantum ergodicity and delocalization of Schrödinger eigenfunctions, *Nachdiplomvorlesungen données à l’ETH Zurich (2017)*, livre sous presse.