

LIST OF PUBLICATIONS

(June 28, 2024)

- [1] S. Bachmann, A. Bols, and M. Rahnama. Many-body Fu-Kane-Mele index. *ArXiv preprint*, 2024.
- [2] S. Bachmann and G. De Nittis. Lieb–Robinson bounds in the continuum via localized frames. *Preprint arXiv:2406.15670*, 2024.
- [3] S. Bachmann, R. Froese, and S. Schraven. Two-sided Lieb-Thirring bounds. *Preprint arXiv:2403.19023*, 2024.
- [4] S. Bachmann, R. Froese, and S. Schraven. Counting eigenvalues of Schrödinger operators using the landscape function. *Journal of Spectral Theory*, 13(4):1445–1472, 2023.
- [5] S. Bachmann, B. Nachtergaele, and S. Vadnerkar. Dynamical abelian anyons with bound states and scattering states. *Journal of Mathematical Physics*, 64, 2023.
- [6] S. Bachmann, W. De Roeck, M. Fraas, and T. Jappens. A classification of G -charge Thouless pumps in 1D invertible states. *Preprint arXiv:2204.03763*, 2022.
- [7] C. Zhang, M. Levin, and S. Bachmann. Vanishing Hall conductance for commuting Hamiltonians. *Physical Review B*, 105(8):L081103, 2022.
- [8] S. Bachmann, W. De Roeck, B. Donvil, and M. Fraas. Stability of invertible, frustration-free ground states against large perturbations. *Quantum*, 6:793, 2022.
- [9] S. Bachmann and M. Lange. Trotter product formulae for $*$ -automorphisms of quantum lattice systems. *Annales Henri Poincaré*, 2022.
- [10] S. Bachmann, W. De Roeck, M. Fraas, and M. Lange. Exactness of linear response in the quantum Hall effect. *Annales Henri Poincaré*, 22:1113–1132, 2021.
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- [14] S. Bachmann, A. Bols, W. De Roeck, and M. Fraas. Many-body Fredholm index for ground-state spaces and Abelian anyons. *Physical Review B*, 101:085138, 2020.
- [15] S. Bachmann, A. Bols, W. De Roeck, and M. Fraas. Note on linear response for interacting Hall insulators. *Contemporary Mathematics*, 741:23–41, 2020.
- [16] S. Bachmann, W. De Roeck, and M. Fraas. The adiabatic theorem in a quantum many-body setting. *Contemporary Mathematics*, 741:43–58, 2020.

- [17] S. Bachmann, R. Froese, and E.N. Cytrynbaum. A buckling instability and its influence on microtubule orientation in plant cells. *SIAM Journal on Applied Mathematics*, 79(5):2132–2149, 2019.
- [18] S. Bachmann, A. Bols, W. De Roeck, and M. Fraas. Quantization of conductance in gapped interacting systems. *Annales Henri Poincaré*, 19, 2018.
- [19] S. Bachmann, W. De Roeck, and M. Fraas. The adiabatic theorem and linear response theory for extended quantum systems. *Communications in Mathematical Physics*, 361(3):997–1027, 2018.
- [20] S. Bachmann, W. De Roeck, and M. Fraas. Adiabatic theorem for quantum spin systems. *Physical Review Letters*, 119(6):060201, 2017.
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