

LPTM - Preprints

| Année | Auteur(s)                                                                                                                                                                                                                          | Titre article                                                                                                   | Revue                             | Archivage          | Thème |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------|-------|
| 2025  | <a href="#">GERBINO F.</a> , <a href="#">GIACHETTI SSAL P.</a> , <a href="#">DE LUCA A.</a>                                                                                                                                        | Measurement-Induced Phase Transition in State Estimation of Chaotic Systems and the Directed Polymer            |                                   | (arXiv:2501.00547) | B/C   |
| 2025  | <a href="#">LOJO H.</a> , <a href="#">CECILE G.</a> , <a href="#">GOPALAKRISHNAN S.</a> , <a href="#">LAMI G.</a> , <a href="#">DE NARDIS J.</a>                                                                                   | Correlations, Spectra and Entanglement Transitions in Ensembles of Matrix Product States                        |                                   | (arXiv:2412.14261) | B/C   |
| 2025  | <a href="#">MAGNI B.</a> , <a href="#">CHRISTOPOULOS A.</a> , <a href="#">DE LUCA A.</a> , <a href="#">TURKESHI X.</a>                                                                                                             | Anticoncentration in Clifford Circuits and Beyond: From Random Tensor Networks to Pseudo-Magic States           |                                   | (arXiv:2502.20455) | B/C   |
| 2025  | <a href="#">SAULIERE A.</a> , <a href="#">MAGNI B.</a> , <a href="#">LAMI G.</a> , <a href="#">TURKESHI X.</a> , <a href="#">DE NARDIS J.</a>                                                                                      | Universality in the Anticoncentration of Chaotic Quantum Circuits                                               |                                   | (arXiv:2503.00119) | B/C   |
| 2024  | <a href="#">BELL S.</a> , <a href="#">ACKERMANN J.</a> , <a href="#">MAITRA A.</a> , <a href="#">VOITURIEZ R.</a>                                                                                                                  | Ordering, spontaneous flows and aging in active fluids depositing tracks                                        | A paraître Phys. Rev. E           | (arXiv:2409.05195) | D     |
| 2024  | <a href="#">BERGOIN R.</a> , <a href="#">TORCINI A.</a> , <a href="#">DECO G.</a> , <a href="#">QUOY M.</a> , <a href="#">ZAMORA-LOPEZ G.</a>                                                                                      | Emergence and long-term maintenance of modularity in plastic networks of spiking neurons                        |                                   | (arXiv:2405.18587) | D     |
| 2024  | <a href="#">BIAGETTI L.</a> , <a href="#">ALBA V.</a>                                                                                                                                                                              | Bound-state confinement after trap-expansion dynamics in integrable systems                                     |                                   | (arXiv:2402.17623) | B/C   |
| 2024  | <a href="#">BIAGETTI L.</a> , <a href="#">LEBEK M.</a> , <a href="#">PANFIL M.</a> , <a href="#">DE NARDIS J.</a>                                                                                                                  | Generalised BBGKY hierarchy for near-integrable dynamics                                                        |                                   | (arXiv:2408.00593) | B/C   |
| 2024  | <a href="#">CABALLERO F.</a> , <a href="#">MAITRA A.</a> , <a href="#">NARDINI C.</a>                                                                                                                                              | Interface dynamics of wet active systems                                                                        |                                   | (arXiv:2409.02288) | D     |
| 2024  | <a href="#">CANTINI L.</a> , <a href="#">ZAHRA A.</a>                                                                                                                                                                              | Single impurity in the Totally Asymmetric Simple Exclusion Process                                              |                                   | (arXiv:2411.08480) | B/C   |
| 2024  | <a href="#">CHRISTOPOULOS A.</a> , <a href="#">CHAN A.</a> , <a href="#">DE LUCA A.</a>                                                                                                                                            | Universal distributions of overlaps from unitary dynamics in generic quantum many-body systems                  |                                   | (arXiv:2404.10057) | B/C   |
| 2024  | <a href="#">CIVITCIOGLU B.</a> , <a href="#">ROMER R.</a> , <a href="#">HONECKER A.</a>                                                                                                                                            | Phase determination with and without deep learning                                                              |                                   | (arXiv:2403.09786) | A     |
| 2024  | <a href="#">COLLURA M.</a> , <a href="#">DE NARDIS J.</a> , <a href="#">ALBA V.</a> , <a href="#">LAMI G.</a>                                                                                                                      | The quantum magic of fermionic Gaussian states                                                                  |                                   | (arXiv:2412.05367) | A     |
| 2024  | <a href="#">DIEP H.T.</a>                                                                                                                                                                                                          | Frustrated Spin Systems: History of the Emergence of a Modern Physics                                           |                                   | (arXiv:2411.12826) | A     |
| 2024  | <a href="#">GIACHETTI G.</a> , <a href="#">DEFENU N.</a>                                                                                                                                                                           | On the Conditions for a Quantum Violent Relaxation                                                              |                                   | (arXiv:2312.14768) | B/C   |
| 2024  | <a href="#">GUTIERREZ DE LA CAL X.</a> , <a href="#">ALKHATEEB M.</a> , <a href="#">PONS M.</a> , <a href="#">MATZKIN A.</a> , <a href="#">SOKOLOVSKI D.</a>                                                                       | Quantum statistical effects in one-particle densities: scattering and pair production                           |                                   | (arXiv:2407.13905) | A     |
| 2024  | <a href="#">HALIMEH J.C.</a> , <a href="#">KHODAEVA U.E.</a> , <a href="#">KOVRIZHIN D.L.</a> , <a href="#">MOESSNER R.</a> , <a href="#">KNOLLE J.</a>                                                                            | Disorder-Free Localization for Benchmarking Quantum Computers                                                   |                                   | (arXiv:2410.08268) | A     |
| 2024  | <a href="#">HUBNER F.</a> , <a href="#">BIAGETTI L.</a> , <a href="#">DE NARDIS J.</a> , <a href="#">DOYON B.</a>                                                                                                                  | Diffusive hydrodynamics from long-range correlations                                                            |                                   | (arXiv:2408.04502) | B/C   |
| 2024  | <a href="#">KOVRIZHIN D.</a> , et al                                                                                                                                                                                               | Observation of disorder-free localization and efficient disorder averaging on a quantum processor               |                                   | (arXiv:2410.06557) | A     |
| 2024  | <a href="#">LECHEMINANT P.</a> , <a href="#">TANIZAKI Y.</a> , <a href="#">TOTSUKA K.</a>                                                                                                                                          | Infrared properties of two-dimensional SU(N)/H nonlinear $\sigma$ models at nonzero $\theta$ angles             |                                   | (arXiv:2412.17493) | A     |
| 2024  | <a href="#">LOBATO-DAUZIER N.</a> , <a href="#">MAITRA A.</a> , <a href="#">ESTEVEZ-TORRES A.</a> , <a href="#">GALAS J.C.</a>                                                                                                     | Confinement determines transport of a reaction-diffusion active matter front                                    |                                   | (arXiv:2401.06674) | D     |
| 2024  | <a href="#">MAITRA A.</a> , et al                                                                                                                                                                                                  | Aging and freezing of active nematic dynamics of cancer-associated fibroblasts by fibronectin matrix remodeling | (DOI: 10.1101/2023.11.22.568216 ) | (bioRxiv (2023))   | D     |
| 2024  | <a href="#">MATO G.</a> , <a href="#">POLITI A.</a> , <a href="#">IORCINI A.</a>                                                                                                                                                   | Chaotic synchronization in adaptive networks of pulse-coupled oscillators                                       |                                   | (arXiv:2407.08453) | D     |
| 2024  | <a href="#">MEHAIGNERIE P.</a> , <a href="#">MACHU J.</a> , <a href="#">DURAN HERNANDEZ H.</a> , <a href="#">CREUTZER G.</a> , <a href="#">PAPOULAR D. J.</a> , <a href="#">RAIMOND J. M. SAYRIN C.</a> , <a href="#">BRUNE M.</a> | Interacting Circular Rydberg Atoms Trapped in Optical Tweezers                                                  |                                   | (arXiv:2407.04109) | A     |
| 2024  | <a href="#">MELLO A.F.</a> , <a href="#">SANTINI A.</a> , <a href="#">LAMI G.</a> , <a href="#">DE NARDIS J.</a> , <a href="#">COLLURA M.</a>                                                                                      | Clifford Dressed Time-Dependent Variational Principle                                                           |                                   | (arXiv:2407.01692) | B/C   |
| 2024  | <a href="#">PAVIGLIANTINI A.</a> , <a href="#">LAMI G.</a> , <a href="#">COLLURA M.</a> , <a href="#">SILVA A.</a>                                                                                                                 | Estimating Non-Stabilizerness Dynamics Without Simulating It                                                    |                                   | (arXiv:2405.06054) | B/C   |
| 2024  | <a href="#">PERUANI F.</a> et al                                                                                                                                                                                                   | The 2024 Motile Active Matter Roadmap                                                                           |                                   | (arXiv:2411.19783) | D     |

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| 2024 | <b>ROUZAIRE Y., RAHMANT P., PAGONABARRAGA I., PERUANI F., LEVIS D.</b>                 | Activity leads to topological phase transition in 2D populations of heterogeneous oscillators                      |                                | (arXiv:2407.19603) | D   |
| 2024 | <b>SANTINI A., LUMIA L., COLLURA M., GIACHETTI G.</b>                                  | Semiclassical Quantum Trajectories in the Monitored Lipkin-Meshkov-Glick Model                                     |                                | (arXiv:2407.20314) | B/C |
| 2024 | <b>SHARIPOV R., TIUTIAKINA A., GORSKY A., GRITSEV V., POLKOVNIKOV A.</b>               | Hilbert space geometry and quantum chaos                                                                           |                                | (arXiv:2411.11968) | B/C |
| 2024 | <b>SHEN Y., O'BYRNE J., SCHOENIT A., MATTRA A., MEGE R.M., VOITURIEZ R., LADOUX B.</b> | Scale-free flocking and giant fluctuations in epithelial active solids                                             |                                | (arXiv:2410.17705) | D   |
| 2024 | <b>TURKESHI X., CALABRESE P., DE LUCA A.</b>                                           | Quantum Mpemba Effect in Random Circuits                                                                           |                                | (arXiv:2405.14514) | B/C |
| 2024 | <b>WANG Z., MCCARTY P., DANKOVA D., HONECKER A., WIETEK A.</b>                         | Anomalous thermal broadening in the Shastry-Sutherland model and SrCu <sub>2</sub> (BO <sub>3</sub> ) <sub>2</sub> |                                | (arXiv:2405.18475) | A   |
| 2024 | <b>WANG Z., MCCARTY P., DANKOVA D., HONECKER A., WIETEK A.</b>                         | Spectroscopy and complex-time correlations using minimally entangled typical thermal states                        |                                | (arXiv:2405.18484) | A   |
| 2023 | <b>DE LUCA A., GIACHETTI G.</b>                                                        | Elusive phase transition in the replica limit of monitored systems                                                 |                                | (arXiv:2306.12166) | A   |
| 2023 | <b>DE LUCA A., LIU C., NAHUM A., ZHOU T.</b>                                           | Universality classes for purification in nonunitary quantum processes                                              |                                | (arXiv:2312.17744) | B/C |
| 2023 | <b>HUILLET T., MARTINEZ S.</b>                                                         | Level numbers preserving transformations on excursions defined by random walks with state dependent jump laws      |                                | (arXiv:2307.14002) | B/C |
| 2023 | <b>KOLE S. J., ALEXANDER G.P., MATTRA A., RAMASWAMY S.</b>                             | Dynamics of Ordered Active Columns: Flows, Twists, and Waves                                                       |                                | (arXiv:2306.03695) | D   |
| 2023 | <b>LAMI G., HAUG T., DE NARDIS J.</b>                                                  | Quantum State Designs with Clifford Enhanced Matrix Product States                                                 | à paraître, Phys Rev X Quantum | (arXiv:2404.18751) | A   |
| 2023 | <b>PERUANI F., CHAUDHURI D.</b>                                                        | Active stop and go motion: a strategy to improve spatial exploration?                                              |                                | (arXiv:2306.05647) | D   |
| 2022 | <b>DUPREY Q., MATZKIN A.</b>                                                           | Comment on "Does the weak trace show the past of a quantum particle?"                                              |                                | (arXiv:2202.11574) | A   |
| 2022 | <b>KOIBUCHI H., KATO F., EL HOG S., DIGUET G., DUCHARNE B., UCHIMOTO T., DIEP H.T.</b> | Effect of Geometric Confinement on the Stabilization of Skyrmions.                                                 |                                | (arXiv:2208.03847) | A   |
| 2020 | <b>NARAYAN SAHOO S., HOME D., MATZKIN A., SINHA U.</b>                                 | Comment on "Observing the "quantum Cheshire cat" effect with noninvasive weak measurement".                        |                                | (arXiv:2006.00792) | A   |
| 2020 | <b>TARPAU C., CEBEIRO J., NGUYEN M.K., ROLLET G., DUMAS L.</b>                         | On the design of a CST system and its extension to a bi-imaging modality.                                          |                                | (arXiv:2007.02750) | B   |
| 2016 | <b>CANTINI L.</b>                                                                      | Inhomogenous Multispecies TASEP on a ring with spectral parameters.                                                |                                | (arXiv:1602.07921) | B   |