

LPTM - Preprints

| Année | Auteur(s) | Titre article | Revue | Archivage | Thème |
|-------|---|---|-----------------------------------|--------------------|-------|
| 2025 | BAILLOU R., PEDROSA M., GUIGUE Q., MEINIER S., DARNIGE T., PERUANI F., CLEMENT E. | Confinement controls bacterial spreading at all scales | | (arXiv:2503.11364) | D |
| 2025 | BALLESTEROS FERRAZ L., ELOUARD C. | Weak continuous measurements require more work than strong ones | | (arXiv:2502.09732) | A |
| 2025 | GERBINO F., GIACHETTI SSAL P., DE LUCA A. | Measurement-Induced Phase Transition in State Estimation of Chaotic Systems and the Directed Polymer | | (arXiv:2501.00547) | B/C |
| 2025 | HUBNER F., BIAGETTI L., DE NARDIS J., DOYON B. | Diffusive hydrodynamics of hard rods from microscopics | | (arXiv:2503.07794) | A |
| 2025 | OTO H., CECILE G., GOPALAKRISHNAN S., LAMI G., DE NARDIS J. | Correlations, Spectra and Entanglement Transitions in Ensembles of Matrix Product States | | (arXiv:2412.14261) | B/C |
| 2025 | MAGNI B., CHRISTOPOULOS A., DE LUCA A., TURKESHI X. | Anticoncentration in Clifford Circuits and Beyond: From Random Tensor Networks to Pseudo-Magic States | | (arXiv:2502.20455) | B/C |
| 2025 | MATRA A., JENTSCH P., CHEN L., FAN LEE C., TONER J., RAMASWAMY S. | The inconvenient truth about flocks | | (arXiv:2503.17064) | D |
| 2025 | POPOLI P., MATRA A., RAMASWAMY S. | Don't look back: Ordering and defect cloaking in non-reciprocal lattice XY models | | (arXiv:2503.06480) | D |
| 2025 | SAULIERE A., MAGNI B., LAMI G., TURKESHI X., DE NARDIS J. | Universality in the Anticoncentration of Chaotic Quantum Circuits | | (arXiv:2503.00119) | B/C |
| 2025 | TRUONG T.T. | Inversion of the fixed radius Spherical Mean Radon Transform of F. John in $R^{2,3}$ | | | B/C |
| 2024 | BELL S., ACKERMANN J., MATRA A., VOITURIEZ R. | Ordering, spontaneous flows and aging in active fluids depositing tracks | A paraître Phys. Rev. E | (arXiv:2409.05195) | D |
| 2024 | BERGOIN R., TORCINI A., DECO G., QUOY M., ZAMORA-LOPEZ G. | Emergence and long-term maintenance of modularity in plastic networks of spiking neurons | | (arXiv:2405.18587) | D |
| 2024 | BIAGETTI L., ALBA V. | Bound-state confinement after trap-expansion dynamics in integrable systems | | (arXiv:2402.17623) | B/C |
| 2024 | BIAGETTI L., LEBEK M., PANFIL M., DE NARDIS J. | Generalised BBGKY hierarchy for near-integrable dynamics | | (arXiv:2408.00593) | B/C |
| 2024 | CABALLERO F., MATRA A., NARDINI C. | Interface dynamics of wet active systems | | (arXiv:2409.02288) | D |
| 2024 | CANTINI L., ZAHRA A. | Single impurity in the Totally Asymmetric Simple Exclusion Process | | (arXiv:2411.08480) | B/C |
| 2024 | CHRISTOPOULOS A., CHAN A., DE LUCA A. | Universal distributions of overlaps from unitary dynamics in generic quantum many-body systems | | (arXiv:2404.10057) | B/C |
| 2024 | COLLURA M., DE NARDIS J., ALBA V., LAMI G. | The quantum magic of fermionic Gaussian states | | (arXiv:2412.05367) | A |
| 2024 | GIACHETTI G., DEFENU N. | On the Conditions for a Quantum Violent Relaxation | | (arXiv:2312.14768) | B/C |
| 2024 | GUTIERREZ DE LA CAL X., ALKHATEEB M., PONS M., MATZKIN A., SOKOLOVSKI D. | Quantum statistical effects in one-particle densities: scattering and pair production | | (arXiv:2407.13905) | A |
| 2024 | HALIMEH J.C., KHODAEVA U.E., KOVRIZHIN D.L., MOESSNER R., KNOLLE J. | Disorder-Free Localization for Benchmarking Quantum Computers | | (arXiv:2410.08268) | A |
| 2024 | HUBNER F., BIAGETTI L., DE NARDIS J., DOYON B. | Diffusive hydrodynamics from long-range correlations | | (arXiv:2408.04502) | B/C |
| 2024 | KOVRIZHIN D., et al | Observation of disorder-free localization and efficient disorder averaging on a quantum processor | | (arXiv:2410.06557) | A |
| 2024 | LECHEMINANT P., TANIZAKI Y., TOTSUKA K. | Infrared properties of two-dimensional $SU(N)/H$ nonlinear σ models at nonzero θ angles | | (arXiv:2412.17493) | A |
| 2024 | LOBATO-DAUZIER N., MATRA A., ESTEVEZ-TORRES A., GALAS J.C. | Confinement determines transport of a reaction-diffusion active matter front | | (arXiv:2401.06674) | D |
| 2024 | MATRA 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 | MATO G., POLITI A., TORCINI A. | Chaotic synchronization in adaptive networks of pulse-coupled oscillators | | (arXiv:2407.08453) | D |

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| 2024 | MEHAIGNERIE P., MACHU J., DURAN HERNANDEZ H., CREUTZER G., PAPOULAR D. J., RAIMOND J. M. SAYRIN C., BRUNE M. | Interacting Circular Rydberg Atoms Trapped in Optical Tweezers | | (arXiv:2407.04109) | A |
| 2024 | MELLO A.F., SANTINI A., LAMI G., DE NARDIS J., COLLURA M. | Clifford Dressed Time-Dependent Variational Principle | | (arXiv:2407.01692) | B/C |
| 2024 | PAVIGLIANTINI A., LAMI G., COLLURA M., SILVA A. | Estimating Non-Stabilizerness Dynamics Without Simulating It | | (arXiv:2405.06054) | B/C |
| 2024 | PERUANI F. et al | The 2024 Motile Active Matter Roadmap | | (arXiv:2411.19783) | D |
| 2024 | ROUZAIRE Y., RAHMANI P., PAGONABARRAGA I., PERUANI F., LEVIS D. | Activity leads to topological phase transition in 2D populations of heterogeneous oscillators | | (arXiv:2407.19603) | D |
| 2024 | SANTINI A., LUMIA L., COLLURA M., GIACHETTI G. | Semiclassical Quantum Trajectories in the Monitored Lipkin-Meshkov-Glick Model | | (arXiv:2407.20314) | B/C |
| 2024 | SHARIPOV R., TIUTIAKINA A., GORSKY A., GRITSEV V., POLKOVNIKOV A. | Hilbert space geometry and quantum chaos | | (arXiv:2411.11968) | B/C |
| 2024 | SHEN Y., O'BYRNE J, SCHOENIT A., MATTRA A., MEGE R.M., VOITURIEZ R., LADOUX B. | Scale-free flocking and giant fluctuations in epithelial active solids | | (arXiv:2410.17705) | D |
| 2024 | TURKESHI X., CALABRESE P., DE LUCA A. | Quantum Mpemba Effect in Random Circuits | | (arXiv:2405.14514) | B/C |
| 2024 | WANG Z., MCCARTY P., DANKOVA D., HONECKER A., WIETEK A. | Anomalous thermal broadening in the Shastry-Sutherland model and SrCu ₂ (BO ₃) ₂ | | (arXiv:2405.18475) | A |
| 2024 | WANG Z., MCCARTY P., DANKOVA D., HONECKER A., WIETEK A. | Spectroscopy and complex-time correlations using minimally entangled typical thermal states | | (arXiv:2405.18484) | A |
| 2023 | DE LUCA A., GIACHETTI G. | Elusive phase transition in the replica limit of monitored systems | | (arXiv:2306.12166) | A |
| 2023 | DE LUCA A., LIU C., NAHUM A., ZHOU T. | Universality classes for purification in nonunitary quantum processes | | (arXiv:2312.17744) | B/C |
| 2023 | KOLE S. J., ALEXANDER G.P., MATTRA A., RAMASWAMY S. | Dynamics of Ordered Active Columns: Flows, Twists, and Waves | | (arXiv:2306.03695) | D |
| 2023 | LAMI G., HAUG T., DE NARDIS J. | Quantum State Designs with Clifford Enhanced Matrix Product States | à paraître, Phys Rev X Quantum | (arXiv:2404.18751) | A |
| 2023 | PERUANI F., CHAUDHURI D. | Active stop and go motion: a strategy to improve spatial exploration? | | (arXiv:2306.05647) | D |
| 2022 | DUPREY Q., MATZKIN A. | Comment on "Does the weak trace show the past of a quantum particle?" | | (arXiv:2202.11574) | A |
| 2022 | KOIBUCHI H., KATO F., EL HOG S., DIGUET G., DUCHARNE B., UCHIMOTO T., DIEP H.T. | Effect of Geometric Confinement on the Stabilization of Skyrmions. | | (arXiv:2208.03847) | A |
| 2020 | NARAYAN SAHOO S., HOME D., MATZKIN A., SINHA U. | Comment on "Observing the "quantum Cheshire cat" effect with noninvasive weak measurement". | | (arXiv:2006.00792) | A |
| 2020 | TARPAU C., CEBEIRO J., NGUYEN M.K., ROLLET G., DUMAS L. | On the design of a CST system and its extension to a bi-imaging modality. | | (arXiv:2007.02750) | B |
| 2016 | CANTINI L. | Inhomogenous Multispecies TASEP on a ring with spectral parameters. | | (arXiv:1602.07921) | B |