

LPTM - Preprints

Année	Auteur(s)	Titre article	Revue	Archivage	Thème
2025	ALKHATEEB M., <u>MATZKIN A.</u>	Microcausality and Tunneling Times in Relativistic Quantum Field Theory		(arXiv:2507.09066)	A
2025	BAILLOU R., PEDROSA M., GUIGUE Q., MEINIER S., DARNIGE T., <u>PERUANI F.</u> , CLEMENT E.	Confinement controls bacterial spreading at all scales		(arXiv:2503.11364)	D
2025	<u>BALLESTEROS FERRAZ L.</u> , ELOUARD C.	Weak continuous measurements require more work than strong ones		(arXiv:2502.09732)	A
2025	BALLU M, YAO Z., MIRMAND B., <u>PAPOULARD D.</u> , PERRIN H., PERRIN A.	Microwave spectroscopy of ultracold sodium least-bound molecular states	A Paraitre, Phys Rev A (Editors' suggestion)	(arXiv:2503.20330)	A
2025	<u>BRIGATTI E.</u> , <u>PERUANI F.</u>	Metamorphosis of collective patterns modulated by non-reciprocal interactions		(arXiv:2505.02672)	D
2025	<u>COSTA J.</u> , RIBEIRO P, <u>DE LUCA A.</u>	Emergence of universality in transport of noisy free fermions		(arXiv:2504.00188)	B/C
2025	<u>DIEP H.T.</u> , NGO V.T.	Is the hyperscaling relation violated below the upper critical dimension in some particular cases?		(arXiv:2507.02159)	A
2025	<u>DUTTA S.</u> , <u>SAHA A.</u>	Stochastic Heat Engine Using a Single Brownian Ellipsoid		(arXiv:2505.17313)	D
2025	<u>GERBINO F.</u> , <u>GIACHETTI P.</u> , <u>DE LUCA A.</u>	Measurement-Induced Phase Transition in State Estimation of Chaotic Systems and the Directed Polymer		(arXiv:2501.00547)	B/C
2025	GOLDOBIN D.S, AGEEVA M.V., DI VOLO M., <u>TIXIDRE F.</u> , <u>TORCINI A.</u>	Synaptic shot-noise triggers fast and slow global oscillations in balanced neural networks		(arXiv:2505.22373)	D
2025	HUBNER F., <u>BIAGETTI L.</u> , <u>DE NARDIS J.</u> , DOYON B.	Diffusive hydrodynamics of hard rods from microscopics		(arXiv:2503.07794)	A
2025	<u>KETHEPALI J.</u> , <u>URILYON A.</u> , SADHU T., <u>DE NARDIS J.</u>	Ballistic macroscopic fluctuation theory via mapping to point particles		(arXiv:2505.18093)	D
2025	KHODAEVA U.E., KOVRIZHIN D., KNOLLE J.	Quantum critical dynamical response of the twisted Kitaev spin chain		(arXiv:2506.18766)	A
2025	LA MONTAGNA G.M., BUREKOVIC S., <u>MAITRA A.</u> , NARDINI C.	Eppur si muove: Shape of topological defects -- and consequent motion -- in active nematics		(arXiv:2504.19665)	D
2025	<u>LAMI G.</u> , <u>DE LUCA A.</u> , TURKESHI X., <u>DE NARDIS J.</u>	Quantum State Design and Emergent Confinement Mechanism in Measured Tensor Network States		(arXiv:2504.16995)	B/C
2025	LOIO H., <u>CECILE G.</u> , GOPALAKRISHNAN S, <u>LAMI G.</u> , <u>DE NARDIS J.</u>	Correlations, Spectra and Entanglement Transitions in Ensembles of Matrix Product States	Accepted Phys Rev B (2025)	(arXiv:2412.14261)	B/C
2025	<u>MAGNI B.</u> , <u>CHRISTOPOULOS A.</u> , <u>DE LUCA A.</u> , TURKESHI X.	Anticoncentration in Clifford Circuits and Beyond: From Random Tensor Networks to Pseudo-Magic States		(arXiv:2502.20455)	B/C
2025	<u>MAITRA A.</u> , JENTSCH P., CHEN L., FAN LEE C., TONER J., RAMASWAMY S.	The inconvenient truth about flocks		(arXiv:2503.17064)	D
2025	MESPLE F., MALLET P., <u>TRAMBLY DE LAISSARDIERE G.</u> , DUTREIX C., LAPERTOT G., VEUILLIN J-Y, RENARD V.T.	Experimental evidence of the topological obstruction in twisted bilayer graphene		(arxiv:2506.08913)	A
2025	POPOLI P., <u>MAITRA A.</u> , RAMASWAMY S.	Don't look back: Ordering and defect cloaking in non-reciprocal lattice XY models		(arXiv:2503.06480)	D
2025	<u>SAULIERE A.</u> , <u>MAGNI B.</u> , <u>LAMI G.</u> , TURKESHI X., <u>DE NARDIS J.</u>	Universality in the Anticoncentration of Chaotic Quantum Circuits		(arXiv:2503.00119)	B/C
2025	TIRRITO E., LUMIA L., PAVIGLIANITI A., <u>LAMI G.</u> , SILVA A., TURKESHI X., COLLURA M.	Magic phase transitions in monitored gaussian fermions		(arXiv:2507.07179)	B/C
2025	<u>TRAMBLY DE LAISSARDIERE G.</u> , et al	Electronic structure and transport in materials with flat bands: 2D materials and quasicrystals		(arXiv:2506.06721)	A
2025	<u>TRUONG T.T.</u>	Inversion of the fixed radius Spherical Mean Radon Transform of F. John in $\mathbb{R}^{2,3}$			B/C
2025	<u>URILYON A.</u> , <u>BIAGETTI L.</u> , <u>KETHEPALI J.</u> , <u>DE NARDIS J.</u>	Simulating generalised fluids via interacting wave packets evolution		(arXiv:2505.21000)	A
2024	<u>BIAGETTI L.</u> , LEBEK M., PANFIL M., <u>DE NARDIS J.</u>	Generalised BBGKY hierarchy for near-integrable dynamics		(arXiv:2408.00593)	B/C

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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	CHRISTOPOULOS A., SANTINI A., GIACHETTI G.	Cahier de l'Institut Pascal: Noisy Quantum Dynamics and Measurement-Induced Phase Transitions	To appear on Cahier de l'Institut Pascal	(arXiv:2409.06310)	B/C
2024	COLLURA M., DE NARDIS J., ALBA V., LAMI G.	The quantum magic of fermionic Gaussian states		(arXiv:2412.05367)	A
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	KOVRIZHIN D., et al	Observation of disorder-free localization and efficient disorder averaging on a quantum processor		(arXiv:2410.06557)	A
2024	MAITRA 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
2024	PAVIGLIANTINI A., LAMI G., COLLURA M., SILVA A.	Estimating Non-Stabilizerness Dynamics Without Simulating It		(arXiv:2405.06054)	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	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., MAITRA A., RAMASWAMY S.	Dynamics of Ordered Active Columns: Flows, Twists, and Waves		(arXiv:2306.03695)	D
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