

LPTM - Preprints

Année	Auteur(s)	Titre article	Revue	Archivage	Thème
2024	ALKHATEEB M. , GUTIERREZ DE LA CAL X. , PONS M. , SOKOLOVSKI D. , MATZKIN A.	Relativistic Quantum Field Theory Approach to Wavepacket Tunneling: Lack of Superluminal Transmission		(arXiv:2407.07160)	A
2024	ALLAM J. , MATZKINS A.	Characterizing entangled state update in different reference frames with weak measurements		(arXiv:2410.20450)	A
2024	BELL S. , ACKERMANN J. , MAITRA A. , VOITURIEZ R.	Ordering, spontaneous flows and aging in active fluids depositing tracks		(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. , MAITRA 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	CAPONI S. , DEVOS L. , LECHEMINANT P. , TOTSUKA K. , VANDERSTRAETEN L.	Level numbers preserving transformations on excursions defined by random walks with state dependent jump laws		(arXiv:2409.01019)	A
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	CIVITCIOGLU B. , ROMER R. , HONECKER A.	Phase determination with and without deep learning		(arXiv:2403.09786)	A
2024	COLLURA M. , DE NARDIS J. , ALBA V. , LAMI G.	The quantum magic of fermionic Gaussian states		(arXiv:2412.05367)	A
2024	DAEM F. , MATZKIN A.	Tunneling dynamics of the relativistic Schrödinger/Salpeter equation		(arXiv:2406.16644)	A
2024	DE ANGELIS D. , DE NARDIS J. , SCOPA S.	Enhanced correlations due to ballistic transport		(arXiv:2409.17609)	A
2024	DIEP H.T.	Frustrated Spin Systems: History of the Emergence of a Modern Physics		(arXiv:2411.12826)	A
2024	DJENABOU B. , CIVITCIOGLU B. , WEBB J. J. , HONECKER A. , ROMER R. A.	Machine learning of phases and structures for model systems in physics		(arXiv:2409.03023)	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	KARLOVA K. , HONECKER A. , CACI N. , WESSEL S. , STRECKA S. , VERKHOLYAK T.	Thermodynamic properties of the macroscopically degenerate tetramer-dimer phase of the spin-1/2 Heisenberg model on the diamond-decorated square lattice		(arXiv:2409.02183)	A
2024	KHABTHANI J.J. , CHIKA K. , JEMAI G. , MAYOU D. , TRAMBLY DE LAISSARDIERE G.	Electronic structure and conductivity in functionalized multi-layer Black Phosphorene		(arXiv:2403.01936)	A
2024	KHALILIAN H. , PERUANI F. , SARABADANI J.	Structural dynamics and optimal transport of an active polymer		(arXiv:2401.01719)	D
2024	KOVRIZHIN D. , et al	Observation of disorder-free localization and efficient disorder averaging on a quantum processor		(arXiv:2410.06557)	A
2024	LOBATO-DAUZIER N. , MAITRA A. , ESTEVEZ-TORRES A. , GALAS J.C.	Confinement determines transport of a reaction-diffusion active matter front		(arXiv:2401.06674)	D
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

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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	SAAVEDRA R., PERUANI F.	Self-trapping of active particles induced by non-reciprocal interactions in disordered media		(arXiv:2404.10932)	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., TIUTAKINA 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., MATRA A., MEGE R.M., VOITURIEZ R., LADOUX B.	Scale-free flocking and giant fluctuations in epithelial active solids		(arXiv:2410.17705)	D
2024	TAKEUCHI K.A., DE NARDIS J., BUSANI O., FERRARI P.L., VASSEUR R.	Partial yet definite emergence of the Kardar-Parisi-Zhang class in isotropic spin chains		(arXiv:2406.07150)	B/C
2024	TURKESHI X., CALABRESE P., DE LUCA A.	Quantum Mpemba Effect in Random Circuits		(arXiv:2405.14514)	B/C
2024	URILYON A., SCOPA S., DEL VECCHIO G., DE NARDIS J.	Quantum fluctuating theory for one-dimensional shock waves		(arXiv:2403.08875)	A
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	COURSON J., MANOS T., QUOY M.	Networks' modulation: How different structural network properties affect the global synchronization of coupled Kuramoto oscillators	to appear in the Springer Proceedings volume of the 28th Summer School Conference on Dynamical Systems and Complexity, 18-26 July 2023, Chania, Greece	(arXiv:2303.03099)	D
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	HUILLET T., MARTINEZ S.	Level numbers preserving transformations on excursions defined by random walks with state dependent jump laws		(arXiv:2307.14002)	B/C
2023	KOLE S. J., ALEXANDER G.P., MATRA 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
2023	POLITI A., TORCINI A.	A robust balancing mechanism for spiking neural networks		(bioRxiv:2023.08.28.555064)(DOI: 10.1101/2023.08.28.555064)	D

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2023	WAGNER M., OLDZIEJEWSKI R., ROSE F., KODER V., KUHNENKAMP C., IMAMOGLU A., SCHMIDT R.	Feshbach resonances of composite charge carrier states in atomically thin semiconductor heterostructures		(arXiv:2310.08729)	A
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