Seminar/Talk

Symplectic vs. topological quasi-states

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Host: Kaloshin Group

Topological quasi-states are special functionals on the algebra of continuous functions which are linear on single-generated subalgebras. They trace their origins to the von Neumann axioms of quantum mechanics. On symplectic surfaces, every topological quasi-state is symplectic, i.e., linear on Poisson-commutative subalgebras. We discuss the failure of this phenomenon in higher dimensions based on the study of symplectic embeddings of polydiscs. Furthermore, we introduce a Wasserstein-type metric on quasi-states and use it for quantitative constraints on symplectic quasi-states. The talk is based on a joint work with Frol Zapolsky.

Tuesday, February 18, 2025 02:00pm - 03:30pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

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