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Exact Spectral Form Factor and Entanglement Spreading

in a Minimal Model of Many-Body Quantum Chaos

I will discuss the concept of self-duality (or dual unitarity) in periodically driven (Floquet) quantum Ising spin 1/2 chains which allows for some non-trivial exact computations, despite manifest non-integrability of the model. For example, I will outline a rigorous proof of random matrix spectral form factors in the model and universal entanglement spreading which saturates the minimal cut bounds.