Plenary Talk 2

Chaos and Quantum-classical Correspondence for Channels

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Channels are general quantum evolutions applicable to open systems. We introduce and study the classical equivalents of these, defining channels via the Koopman operator. This enables the study of quantum-classical correspondence in open and chaotic systems. We point to several interesting features, including scarring of channels and the applicability of the single-ring theorem of random matrix theory in these contexts.