



QuanTalks

IISc Quantum Technology Initiative (IQTI) Seminar Series



Title: Chaos and Information in the quantum world

Speaker: Prof. Vaibhav Madhok,
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Abstract: How physical systems process and exchange information is crucial to gaining insights into the workings of our universe. For example, the connections between entropy, information and thermodynamics form the cornerstone of statistical mechanics. Study of quantum information sheds light on the very foundations of quantum theory. For example, it has helped us address the question of characterizing chaos and its signatures in quantum systems. I will describe ongoing work on ways to detect the footprints of chaos in the quantum world and the consequences of chaos in quantum information processing.

Author Biography: Vaibhav Madhok received his BTech in Computer Engineering from University of Pune and Ph.D. from the University of New Mexico and then, after postdoctoral positions in Waterloo and University of British Columbia, joined IIT Madras as faculty. His research interests are in dynamical systems, classical and quantum chaotic systems, quantum information, especially entanglement/non-classical correlations, quantum foundations, quantum to classical transition, random matrix theory, mathematical biology and complex systems

Meeting Link: [Click here to join the Webinar](#)

Date & Time **Wednesday, 27th April 2022, 6:00 PM IST**

