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沖縄科学技術大学院大学

THEORETICAL SCIENCES VISITING PROGRAM

TSVP TALK

Quantum Signatures of Chaos

2023
THU. **Sept. 7**

15:00–16:00

HYBRID L4E48, ZOOM



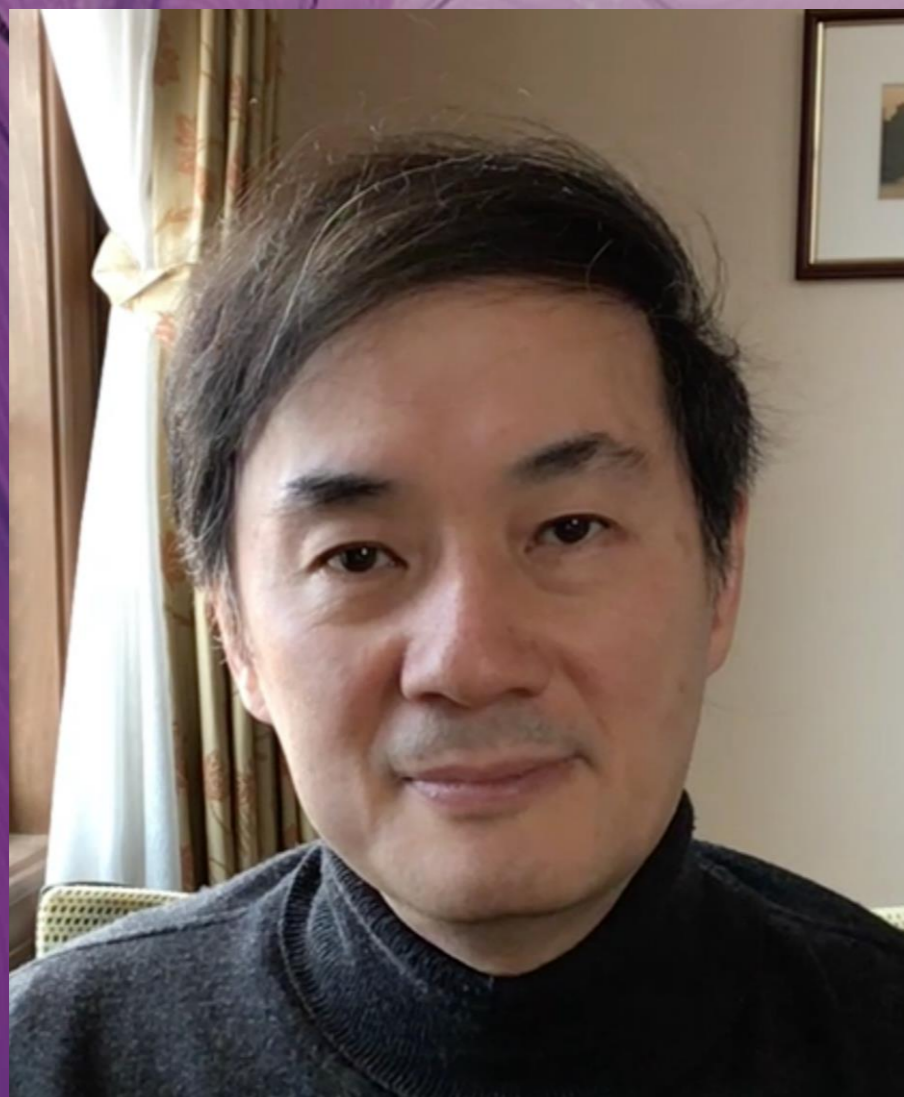
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It is widely recognized that when classical dynamics exhibit chaotic behavior, one can find fingerprints in the corresponding quantum mechanics. The term 'quantum signatures of chaos' refers to such aspects of the correspondence between classical and quantum mechanics in chaotic systems. To understand how classical chaos manifests itself in quantum mechanics, we must struggle with three different types of singular limits: the first concerns the long-term behavior of the dynamics; the second arises from the relation between quantum and classical mechanics; and the third becomes relevant when considering the integrable limit. In this talk, we will first introduce the chaos in classical mechanics, and then give an overview of several issues that arise when these three singular limits are involved.

Tokyo Metropolitan University

Akira Shudo

Akira Shudo is a professor in the Department of Physics at Tokyo Metropolitan University. He received his Ph.D. from Waseda University in the field of nonlinear dynamics. He has worked on chaos in classical and quantum mechanics. His recent work has focused on quantum tunneling in nonintegrable systems.



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