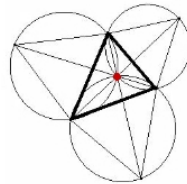




Cuernavaca Gathering on Non-Hermitian Quantum Systems from PT symmetries and transport to light-harvesting in molecular aggregates

04 - 08 November 2019



Centro
Internacional de
Ciencias A.C.



UNAM-PAPIIT
IA101618



CONACYT
Proyecto 299134

Monday:

10:00 – 11:30: L. Cederbaum: *On systems with and without excess energy in environment – ICD and other interatomic mechanisms*

12:00 – 13:30: G. Giusteri: *Interplay of multiple environments in open quantum systems*

15:30 – 17:00: H. Pastawski: *Non-Hermiticity and Quantum Dynamical Phase Transitions, from non-Hermitian Hamiltonians to non-Hermitian Lindblad Equation: a theoretico-experimental quest for emergent intrinsic irreversibility*

17:30 – 19:00: P. Kurian: *How can non-hermitian quantum mechanics inform studies of exciton, plasmon, and other correlations in biological systems?*

Tuesday:

10:00 – 11:30: N. Moiseyev: *Ultrafast control of resonance tunneling by exceptional point*

12:00 – 13:30: J. Barrios-Vargas: *Anomalous localization and eigenspace condensation in non-Hermitian systems*

15:30 – 17:00: Y. Joglekar: *Quantum state tomography and PT breaking transitions in non-Hermitian open systems*

17:30 – 19:00: L. Celardo: *Cooperative effects and long range interactions: from Supertransfer to Cooperative Shielding*

Wednesday:

10:00 – 11:30: E. Graefe: *A non-Hermitian PT-symmetric kicked top*

12:00 – 13:30: P. Stegmann: *Non-Hermitian counting statistics of charge fluctuations*

Wednesday (continuation):

15:30 – 16:15: A. Ortega: *Spectral and transport properties of a simple PT-symmetric tight-binding chain with gain and loss*

16:15 – 17:00: R. Leon: *Generation of high-order exceptional points through photon-number-resolved detection*

17:30 – 19:00: Colloquium at the ICF-UNAM: N. Moiseyev: *Counterintuitive phenomena in atomic molecular and optical systems controlled by exceptional points*

19:30: Conference Dinner at the CIC Guest House

Thursday:

10:00 – 11:30: B. Rodriguez-Lara: *Optical simulation of non-Hermitian physics*

12:00 – 12:45: J. Hall: *Quantum chaos in a PT-Symmetric kicked rotor*

12:45 – 13:30: S. Malzard: *Topologically Protected Defect states in coupled resonator optical waveguides with non-Hermitian charge-conjugation and parity-time symmetry*

15:30 – 17:00: F. Mattiotti & A. Valzelli: *Interplay of cooperativity and functionality: from light-harvesting nanotubes to efficient photon-sensors*

Friday:

10:00 – 11:15: C. Gonzalez: *Non-Markovian dynamics of two-level emitters near a nanofiber with coherent delayed feedback*

11:45 – 13:00: V. Dominguez: *Environmentally-induced exceptional points in elastodynamics*

Participants:

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