

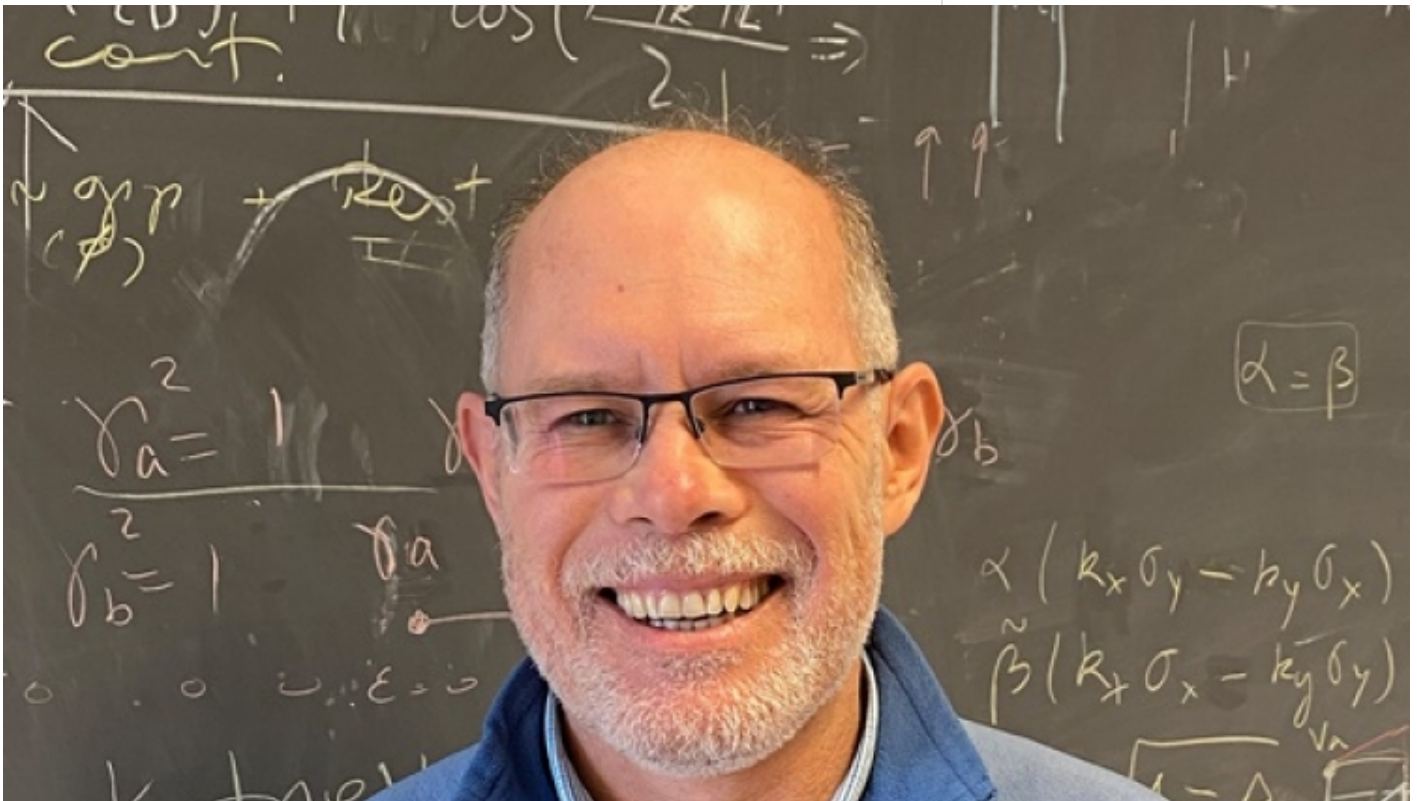
Quantum oscillations?

9 de Novembro de 2023, 14:00 hs - Brasília (12:00hs - USA Eastern Standard Time):
 Prof. Dr. Carlos Egues, Universidade de São Paulo, Instituto de Física de São Carlos (SP/BR) e Universidade de Basel (Suiça)

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In this talk I will overview some of our recent works involving (i) the nonlocality of local Andreev conductances as a probe for topological Majorana wires in novel three-terminal superconducting 1D setups, asymmetrically coupled to normal leads [1], (ii) phase driving hole spin qubits in double quantum dots under simultaneous transverse (Rabi) and longitudinal (phase) drives [2], which enables tunable additional side bands and (some) immunity against noise, and (iii) beating-free magnetoresistivity in 2D electron gases with strong (unmatched) spin-orbit and Zeeman interactions, in which a new condition for the vanishing of beatings is derived [3,4].

*On leave from the University of São Paulo (IFSC).

[1] Dourado, Penteadó, and Egues, arXiv:2303.01867.

[2] Bosco, Geyer, Camenzind, Egli, Fuhrer, Warburton, Zumbühl, Egues, Kuhlmann, and Loss, arXiv:2303.03350, Phys. Rev. Lett., in press (Editors' suggestions).

[3] Candido, Erlingsson, Gramizadeh, Costa, Weigele, Zumbühl, and Egues, arXiv:2304.14327.

[4] Gramizadeh, Candido, Manolescu, Egues, and Erlingsson, arXiv:2306.02503.