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**CARLOS GUSTAVO MOREIRA**, IMPA

*Geometric properties of the Markov and Lagrange spectra and dynamical generalizations*

The classical Markov and Lagrange spectra are sets of real numbers related to Diophantine Approximations. We will present classical and recent results on these sets involving their dynamical characterization and aspects of fractal geometry. We will also discuss natural generalizations of these spectra in the context of Dynamical Systems and Differential Geometry, and recent results related to these generalizations, in collaboration with Rom a na, Cerqueira and Matheus.