83º EDAÍ   28 de Junho de 2019
Sala de Seminários, 4to andar do Bloco H, Campus de Gragoatá, UFF

Matinê: 14h00 – 15h00
Linear Dynamics
Udayan B. Darji (Univ. of Louisville)

Linear dynamics is a relatively recent area of mathematics which lies at the intersection of operator theory and dynamical systems. A flurry of intriguing results have been obtained in this area starting with investigation of transitivity and mixing. Recent investigations include concepts such as Li-Yorke, Devaney and distributional chaos, invariant measures, ergodicity and frequently hypercyclic, expansive, hyperbolic, shadowing and structural stability. In this survey panoramic talk, we will highlight some of the essential results. We will also discuss some of the joint results of the speaker with Bernardes, Cirilo, Messaoudi, Pires, Pujals, Varão and others.

Palestra 1: 15h10 – 16h10
Hausdorff dimension of projections of dynamically defined complex Cantor sets
Alex M. Zamudio (UFRJ)

I will talk about a dimension formula stating that

$$HD(h(K)) = \min\{1, HD(K)\},$$

where h is a C^1 function from $\mathbb{C}$ to $\mathbb{R}$ and $K \subset \mathbb{C}$ is a dynamically defined complex Cantor set. This formula is an improvement, in the particular case of dynamically defined complex Cantor sets, of a classical result of Marstrand. The proof is based on ideas developed by Moreira when he proved a similar formula in the real context. We will try to comment on further interesting problems and connections with complex dynamics.
This is a joint work with Carlos G. Moreira (IMPA)

Café: 16h10 – 16h40

Palestra 3: 16h40 – 17h40
Uniqueness of the measure of maximal entropy for geodesic flows on certain manifolds without conjugate points
Khadim War (IMPA)

We prove that for closed surfaces M with Riemannian metrics without conjugate points and genus than 2 the geodesic flow on the unit tangent bundle has a unique measure of maximal entropy. Furthermore, this measure is fully supported and the flow is mixing with respect to this measure. We formulate conditions under which this result extends to higher dimensions.

Confraternização: 18h00 – ∞ - Chopp na Cantareira

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