CAFE-Dyn
**Workshop in Complexity, Aperiodicity, Fractal and Ergodicity in Dynamics**
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# Weighted Shift with Diagonal: Spectrum and Linear Dynamics

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Since the early days of linear dynamics, the weighted shifts have served as a key example for understanding important properties in the area, being one of the first examples of a hypercyclic operator. Salas gave a characterization of when weighted shift operators are hypercyclic, and in the same paper he also established sufficient conditions ensuring that the operator $B_w + I$ is hypercyclic.

In this work, we focus on the results known for weighted shifts with diagonal operator, as defined by

$$T_{d,w} = B_w + I_d,$$

acting on $\ell^p$, where $B_w$ is a weighted shift and $I_d$ is a bounded diagonal operator. More specifically, our goal is to discuss criteria for hypercyclicity and frequent hypercyclicity.

SLIDES

Tuesday - February 10, 2026 - 15:00 - 16:00
253 - Thesis Defense Room - 2nd Floor IMECC