

## SEMINARIO SISTEMAS DINÁMICOS DE SANTIAGO

**EXPOSITOR(A):** Sebastián Donoso (Universidad de Chile)

**TÍTULO:** *The joint transitivity property.*

**IDIOMA:** Inglés

**RESUMEN:** In recent years, the joint ergodicity property, which states that averages of  $T_1^{a_1(n)} f_1 \cdots T_k^{a_k(n)} f_k$  converge (in the  $L^2$  norm) to the product  $\prod_{i=1}^k \int f_i d\mu$ , has been extensively investigated in ergodic theory. The talk will focus on an analogous property in the topological dynamics setting, referred to as  $\Delta$ -transitivity or joint transitivity. The problem is to determine conditions under which the sequence  $(T_1^{a_1(n)} x, \dots, T_k^{a_k(n)} x)_{n \in \mathbb{N}}$  is dense in  $X^k$  for a dense set of  $x \in X$ . In recent work with Andreas Koutsogiannis and Wenbo Sun, we established conditions under which the sequence  $(T_1^n, T_2^n, \dots, T_d^n)$  is jointly transitive. In this talk, we will review the main ideas of the proof and, if time allows, state possible future questions and directions.

**DÍA / HORA:** Lunes 23 de septiembre, 2024 / 16:30 - 17:30 hrs.

**LUGAR:** Sala Multimedia (6° Piso), Facultad de Ciencias Físicas y Matemáticas (Beauchef 851), Universidad de Chile