



Colloquium del Departamento de Análisis Matemático

Juan Bes

Bowling Green State University

“Algebras of hypercyclic vectors for convolution and composition operators”

Jueves 6 de julio de 2017
a las 13:00 horas en el seminario 222

Abstract:

One task in linear dynamics has been to determine the existence of large algebraic structures within the set

$HC(T) = \{ f \in X : \{ f, Tf, T^2f, \dots \} \text{ is dense in } X \}$

of hypercyclic vectors of an operator T on a Fréchet algebra X . That is, when does $HC(T)$ contain (but zero) (i) a dense linear subspace? (ii) a closed and infinite-dimensional linear subspace? (iii) a non-finitely generated subalgebra of X ?

Plenty is known about the first two questions, but not so much about the last one, of which we discuss some recent attempts to address this gap.

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