

Chaotic behaviour of operators on compact invariant sets

MARINA MURILLO¹, ALFRED PERIS²

¹ IUMPA, Universitat Politècnica de València, Edifici 8G, Camí Vera S/N, 46022 València, Spain.
E-mail: mamuar1@posgrado.upv.es

² IUMPA, Universitat Politècnica de València, Departament de Matemàtica Aplicada, Edifici 7A, 46022 València, Spain.
E-mail: aperis@mat.upv.es

In this work we will study properties such as hypercyclicity, Devaney chaos, and the transitivity of operators defined on invariant compact sets. To this end, we will focus on absolutely convex compact sets and will obtain results that will allow us to take the properties of operators defined on invariant compact sets and generalize these properties to said set's convex hull or the Banach subspace generated by the closure of its linear hull. Moreover, we will give examples that illustrate these results and characterize when an operator defined on an invariant compact set is transitive, mixing, or chaotic.

References

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