

Γ -hypercyclic set of a bounded linear operator

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Based on the study of hypercyclic operators and some spectral tools, we focus in this paper to study some properties of a new set defined by $\Gamma_{hyp}(T) := \{\lambda \in \mathbb{C} \text{ such that } T - \lambda \text{ is hypercyclic}\}$ for a given bounded linear operator T acting on separable Banach space. Several fundamental examples are treated in detail: hyponormal operators, operators satisfying the property (β) and weighted shift on $(l_p, 1 \leq p < \infty)$ spaces. Furthermore, we apply the obtained results to a class of bounded linear operators satisfying $ABA = A^2$ and $BAB = B^2$ and to upper triangular matrix operators.

The talk is based on a joint work with A. Ben Amar, A. Jeribi and E. H. Zerouali.

References

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