

İSTANBUL ANALYSIS SEMINARS

HYPERCYCLICITY VERSUS DISJOINT HYPERCYCLICITY

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Abstract: A (continuous, linear) operator T on a Fréchet space X is said to be hypercyclic provided it supports some vector f in X whose orbit $\{f, Tf, T^2f, \dots\}$ is dense in X . Such an f is called a hypercyclic vector for T . A tuple (T_1, T_2) of hypercyclic operators on X is said to be disjoint-hypercyclic provided the direct sum $T_1 \oplus T_2$ supports a hypercyclic vector of the form (f, f) in $X \times X$. We contrast the dynamics of a single operator T versus the disjoint dynamics of a tuple (T_1, T_2) .

This includes joint work with J. Bès, A. Peris, R. Sanders, and S. Shkarin.

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