

# HYPERCYCLIC OPERATORS FAILING THE HYPERCYCLICITY CRITERION

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ABSTRACT. It was a long-standing open problem to know whether, for every hypercyclic operator, its direct sum with itself remains hypercyclic. This problem has been recently solved in the negative by De La Rosa and Read. We show how to construct this kind of operators on a Hilbert space and how to obtain various qualitative properties of them (joint work with E. Matheron).