

# Some problems related with frequent hypercyclicity and chaos

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It will be pointed out that any complex separable infinite-dimensional Fréchet space with a continuous norm and an unconditional Schauder decomposition supports an operator  $T$  which is chaotic and frequently hypercyclic, also it will be seen that complex Fréchet spaces with an unconditional basis support that kind of operators too. By this mean, it will be given a partial positive answer to a problem posed by J. Bonnet. Also it will be presented a non-chaotic hypercyclic operator on  $\omega = \mathbb{C}^{\mathbb{N}}$  which solves in the negative a problem posed by J. Bès and K. Chan.

The talk is based on a joint work with L. Frerick, S. Grivaux and A. Peris.