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DYNAMICS OF TUPLES OF MATRICES IN JORDAN FORM

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Abstract. A tuple $(T_1,\dots,T_k)$ of $n\times n$ matrices over $\mathbb{R}$ is called hypercyclic if for some $x\in\mathbb{R}^n$ the set $\{T_1^{m_1}T_2^{m_2}\cdots T_k^{m_k}x : m_1,m_2,\dots,m_k\in\mathbb{N}_0\}$ is dense in $\mathbb{R}^n$. We prove that the minimum number of $n\times n$ matrices in Jordan form over $\mathbb{R}$ which form a hypercyclic tuple is $n+1$. This answers a question of Costakis, Hadjiloucas and Manoussos.

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