Preperiodic points for family of rational maps

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Let $f_\lambda$ be a family of rational functions indexed by parameter $\lambda \in \mathbb{C}$. Let $a(\lambda)$ and $b(\lambda)$ be two given algebraic families of points which are rational function in $\lambda$. In this talk, we’ll discuss the question on the conditions that there are infinitely many parameters $\lambda$ such that both $a(\lambda)$ and $b(\lambda)$ are preperiodic for $f_\lambda$. We will also discuss a dynamical analogue of the unlikely intersection conjecture given by Pink and Zilber. This is a joint work with Dragos Ghioca and Tom Tucker.