## Liang-Chung Hsia

## Preperiodic points for family of rational maps

Friday, September 16, 2011

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.