Algebraic periods of surface homeomorphisms

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A self-map $f\colon M \to M$ of a compact manifold determines the sequence $\{L(f^n)\}$, $n \geq 1$, of the Lefschetz numbers of its iterations. We consider its dual sequence $\{a_n(f)\}_{n=1}^{\infty}$ given by the Möbius inversion formula. The set $\mathcal{AP}(f) = \{n : a_n(f) \neq 0\}$ is called the set of algebraic periods of f. During the talk we describe finite sets of algebraic periods of homeomorphisms of an orientable surface, especially of Morse–Smale diffeomorphisms.

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