

Le Calvez, Patrice

Why do the periodic points of homeomorphisms of the Euclidean plane rotate around certain fixed points? (Pourquoi les points périodiques des homéomorphismes du plan tournent-ils autour decertains points fixes ?) (French) [Zbl 1168.37010](#)

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Author's abstract: Let f be an orientation-preserving homeomorphism of the euclidean plane \mathbb{R}^2 that has a periodic point z^* of period $q \geq 2$. We prove the existence of a fixed point z such that the linking number between z^* and z is different from zero. That means that the rotation number of z^* in the annulus $\mathbb{R}^2 \setminus \{z\}$ is a non-zero element of \mathbb{R}/\mathbb{Z} . This gives a positive answer to a question asked by John Franks.

Reviewer: [Iuliana Oprea \(Fort Collins\)](#)

MSC:

37E99 Low-dimensional dynamical systems

Cited in **5** Documents

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