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COUNTING FIXED POINTS OF A FINITELY GENERATED SUBGROUP OF $\mathbf{Aff}[\mathbb{C}]$

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Abstract

Given a finitely generated subgroup G of the group of affine transformations acting on the complex line $\mathbb{C}$, we are interested in the quotient $\mathrm{Fix}(G)/G$. The purpose of this note is to establish when this quotient is finite and in this case its cardinality. We give an application to the qualitative study of polynomial planar vector fields at a neighborhood of a nilpotent singular point.

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