

Foliations on the projective plane with finite group of symmetries

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Abstract. Let \mathcal{F} denote a singular holomorphic foliation on \mathbb{P}^2 having a finite automorphism group $\text{Aut}(\mathcal{F})$. We determine the maximal value that $|\text{Aut}(\mathcal{F})|$ can take and explicitly exhibit all the foliations attaining this maximal value. Furthermore, we classify the foliations with large but finite automorphism group.

Mathematics Subject Classification (2010): 37F75 (primary); 32M25, 20B25 (secondary).