# FOLIATIONS ON PROJECTIVE SPACES ASSOCIATED TO THE AFFINE LIE ALGEBRA

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**Abstract:** In this work we construct some irreducible components of the space of two-dimensional holomorphic foliations on $\mathbb{P}^n$ associated to some algebraic representations of the affine Lie algebra $\mathfrak{aff}(\mathbb{C})$. We give a description of the generalized Kupka components, obtaining a classification of them in terms of the degree of the foliations, in both cases $n = 3$ and $n = 4$.

**2010 Mathematics Subject Classification:** 32S65.

**Key words:** holomorphic foliations, the affine Lie algebra, generalized Kupka components.