Logarithmic foliations of codimension > 1

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Resumo/Abstract:
The aim of this talk is to discuss some properties of foliations on P n defined by logarithmic p-forms, where $2 \leq p \leq n-2$. We begin by stating a normal form in the case of germs of closed logarithmic p-forms for which the divisor of poles is "generic" in a sense to be defined. We then obtain a normal form for logarithmic p-forms on P n in the case where the pole divisor is normal crossing, $1 \leq p \leq n-1$. When the p-form, say η, defines a codimension p foliation, has normal crossing pole divisor and $2 \leq p \leq n-2$, we can prove that η is totally decomposable as a product of p logarithmic 1-forms with the same pole divisor: $\eta = \omega 1 \bigwedge \ldots \bigwedge \omega p$. In particular, the foliation is the "intersection" of p logarithmic foliations of codimension one with the same pole divisor. When $p = n-1$ this statement is false, as we will see in an example. We have also a generalization of the well known theorem, due to Omegar Calvo, about the logarithmic irreducible components of the space of foliations on P n.