Varieties of complexes and foliations.

Fernando Cukierman

Universidad de Buenos Aires

Resumo / Abstract:
Let $F(r, d)$ denote the algebraic variety parametrizing integrable differential 1-forms of degree d in the complex projective space of dimension r. First, we recall the well-known problem of describing the irreducible components of $F(r, d)$. Next, we consider the varieties $C(n_0, \dots, n_N)$ parametrizing differential complexes on vector spaces of dimensions $n_0, \dots, n_N$. We shall review the definition and basic properties of $C(n_0, \dots, n_N)$, including the description of its irreducible components. Finally, we discuss the relation with the irreducible components of $F(r, d)$.