

Dolbeault complexes and hyperfunction theory in the bicomplex setting

A. Vajiac

In this talk I will discuss the study of bicomplex holomorphic functions of several variables in \mathbb{BC}^n . In particular I will show how to construct an abstract Dolbeault complex which provides a fine resolution for sheaves of bicomplex holomorphic functions. As a corollary, I will show that the bicomplex hyperfunctions can be represented as classes of differential forms of degree $3n - 1$.

The talk is based on a joint work with F. Colombo, I. Sabadini, D.C. Struppa, and M. Vajiac.