

Weighted Spaces of Monogenic Functions

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Abstract

We will study generalizations of some well known function spaces of holomorphic functions, like, for example, the Dirichlet space, weighted Dirichlet spaces, Besov spaces, the Bloch space and some Bergman spaces. The generalizations can be constructed in several ways. We consider the direct generalization of the original complex definitions, generalizations by different series expansions as well as an approach via conjugate harmonic functions, applying harmonic analysis. Some properties of the defined scales of spaces will be studied and first applications will be discussed in the lecture.