

Meeting: 998, Houston, Texas, SS 10A, Special Session on Complex Analysis and Operator Theory

998-30-104 **Ahmed A. El-Sayed** (ahsayed80@hotmail.com), South Valley Univ. Fac.of Sciences, Dept. of Mathematics, 82524 Sohag, Sohag, Egypt, **Klaus K. Gürlebeck** (guerlebe@fossi.uni-weimar.de), Coudray-Str. 13 B, 99423 Weimar, Turingen, Germany, **Lino F. Resendis** (lfro@correo.azc.uam.mx), Apartado Postal 16-306, 02200 Ciudad de México, D.F., Mexico, and **Luis M. Tovar*** (tovar@esfm.ipn.mx), Edif.9 U. Prof. Zacatenco IPN, 07300 Cd. de México, D.F., Mexico. *Characterizations for $B^{p,q}$ Spaces by Bloch Spaces in Clifford Analysis.*

In this work we will give the definition of $B^{p,q}$ spaces of hyperholomorphic functions. Then the authors characterize these spaces by hypercomplex Bloch spaces. One of the main results that the authors prove is a general Besov-type characterization for quaternionic Bloch functions that generalizes a Stroethoff theorem. Further, some important basic properties of these $B^{p,q}$ spaces are also considered. (Received February 16, 2004)