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Sommario/riassunto	Hypercomplex analysis is the extension of complex analysis to higher dimensions where the concept of a holomorphic function is substituted by the concept of a monogenic function. In recent decades this theory has come to the forefront of higher dimensional analysis. There are several approaches to this: quaternionic analysis which merely uses quaternions, Clifford analysis which relies on Clifford algebras, and generalizations of complex variables to higher dimensions such as split-complex variables. This book includes a selection of papers presented at the session on quaternionic and hypercomplex analysis at the ISAAC conference 2013 in Krakow, Poland. The topics covered represent new perspectives and current trends in hypercomplex analysis and applications to mathematical physics, image analysis and processing, and mechanics.