

Preface

At the 9th International ISAAC Congress (International Society for Analysis, its Applications, and Computations), held at the Pedagogical University of Krakow, Krakow, Poland from August 5 to August 9, 2013, one of the largest sessions was on “Clifford and Quaternionic Analysis” with around 40 speakers coming from all parts of the world: Belgium, Cech Republic, China, Finland, Germany, Israel, Italy, Mexico, Portugal, Russia, Turkey, Venezuela, Ukraine, United Kingdom and the United States.

While there are official congress proceedings, the success of the session led the organizers to ask the participants to present their most recent and promising achievements in a special volume to promote the exciting field of hypercomplex analysis. This volume contains a careful selection of 15 of these papers which cover several different aspects of hypercomplex analysis going from function theory over quaternions, Clifford numbers and multicomplex numbers, operator theory, monogenic signals, to the recent field of fractional Clifford analysis. Additionally, applications to image processing, crack analysis, and the theory of elasticity are covered. All contributed papers represent the most recent achievements in the area. We hope that anybody interested in the field can find many new ideas and promising new directions in these papers.

The Editors are grateful to the contributors to this volume and to the referees, for their painstaking and careful work. They also would like to thank the Pedagogical University in Krakow for hosting the Conference and Vladimir Mityushev, in particular, as Chairman of the local organising committee.

May 2014, Swanhild Bernstein
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