

## PREFACE

It is our pleasure to introduce the Proceedings of the Eighteenth International Conference on Geometry, Integrability and Quantization, which was held in Sts. Constantine and Elena, Varna, Bulgaria, between June 3-8, 2016.

The Conference provided an ideal setting for discussing recent developments in a wide variety of topics in Differential Geometry, Mathematical Physics, Harmonic Map Theory, Lie Groups, Cosmology, Integrable Systems, Symplectic and Contact Geometry, Geometric Control, Partial Differential Equations and their Numerical Solutions, General Relativity and Quantum Theory, just to mention a few of them. The Eighteenth edition gathered over 40 participants from 20 different countries. Almost all of them presented their contributions (as lecturers, plenary talk speakers and ordinary speakers).

Two distinguished speakers delivered Lecture Courses, respectively:

1. Vladimir Kisil from University of Leeds, Leeds (*Erlangen Program in Geometry and Analysis: the Group  $SL_2(\mathbb{R})$  Case Study*)
2. Siye Wu from National Tsing Hua University, Hsinchu (*Symmetry, Phases and Quantisation*).

The above Lectures were complemented by the Plenary Talks delivered by

1. Dorel Fetcu (*Biharmonic Surfaces with Parallel Mean Curvature in Complex Space Forms*)
2. Valeri Frolov (*Black Holes, Hidden Symmetries and Complete Integrability*)

and more than 20 presentations by other participants.

We would like to thank all participants for their contributions to the Conference Program and Proceedings. Our special thanks go to Dr. Mariana Hadzhilazova and Dr. Vladimir Pulov for their devoted assistance in the overall organization of the conference. We would also like to thank the referees for their keen observations and timely reports. Many thanks go to the Bulgarian team of participants and organizers for their support and hospitality. This contributed to create a joyful atmosphere during the conference, and many interesting conversations during meals and refreshment breaks. In addition, the local excursion and social dinner represented two excellent occasions for all participants to interact and discuss their scientific contributions and future professional plans.

Warm thanks also go to the Bulgarian Academy of Science, the Hong Kong University of Science and Technology, and to the Tokyo University of Science, for providing the necessary research framework to the organizers in order to make the conference possible.

We are looking forward to the Nineteenth International Conference on Geometry, Integrability and Quantization which will be held in June 2-7, 2017 at the same location. During the Conference there will be a Special Session on Gravitation, Cosmology and Relativistic Astrophysics organized by Stoytcho Yazadjiev (Sofia University). The Conference will be followed by an International Summer School on Hypercomplex Numbers, Lie Groups, and Applications which will be conducted at the same place in June 9-12, 2017. We hope that these meetings will be as interesting and enjoyable as all previous Conferences.

*The Editors*