Preface

During the last half century Geophysics has experienced a rapid development. Seismic methods, magnetic studies, hydrology, and atmospheric sciences expanded thanks to a boom in the computer sciences and progress in measurement techniques. During those times we also moved the frontiers of geophysics, reaching with our research to polar areas, both Arctic and Antarctic. All these events have been clearly reflected in the 60-year long history of the Institute of Geophysics, Polish Academy of Sciences (PAS). The current volume, being a result of the Jubilee Conference on the occasion of the 60th Anniversary of the Institute that took place on June 14, 2013, in Hotel Windsor in Jachranka near Warsaw, presents the most prominent achievements, the history of research, and also the future potential of the Institute. It also describes measurements in various projects, methods of interpretation of scientific data, and, last but not least, the people who drove the above-mentioned research in many scientific involvements. It is obvious that the rich history of the Institute may be only partially outlined in one volume but it definitely provides a valuable material for well-established researchers and especially for students who are the future of geophysics as a discipline and our Institute as well. For the preparation of the various chapters of the book, representatives of all Institutes’ Departments were invited, the Ph.D. students in line with senior scientists.

The Jubilee Conference gave also an opportunity to honor four outstanding scientists with commemorative medals (see Fig. 1) for their great contributions to the development of the Institute of Geophysics. Professor Roman Teisseyre was awarded for his outstanding and creative work in the field of seismology, Prof. Jerzy Jankowski for his outstanding scientific achievements in the field of geomagnetism, Prof. Aleksander Guterch for his outstanding scientific and organizational achievements in the modeling of the structure of the Earth’s crust and upper mantle, and Doctor Maciej Zalewski was awarded for his commitment to the development of the Polish Polar Station Hornsund in Spitsbergen.

There are several people that have to be acknowledged herein, as without their contributions, this book would have never been prepared. First of all, special thanks are dedicated to all the members of the organizing committee of the 60th Anniversary Conference in Jachranka, namely Robert Bialik, Janusz Borkowski, Zbigniew Czechowski, Anna Łukanowska, Mariusz Majdański, Mateusz Moskalik, Beata Orlecka-Sikora, Krzysztof Otto, Paweł Urban, Tomasz Werner, and Anna
Zdunek. The members decided to entrust us with the task of editing this book and we hope that we have been able to meet their expectations. All chapters have been reviewed by at least two reviewers, including national and international specialists, and we are grateful to all of them, including Mariusz Białecki, Janusz Borkowski, Leszek Czechowski, Wojciech Czuba, Benoit Demars, Tomasz Ernst, Edward Gaczyński, Wolfram Geissler, Alireza Goudarzi, Marek Górski, Dariusz Jakubas, Grzegorz Karasiński, Mikołaj Karpiński, Jacek Kopeć, Marek Kubicki, Leszek Ksiażek, Marek Lewandowski, Bartłomiej Luks, Sławomir Maj, Russel Manson, Iwona Markiewicz, Krzysztof Migała, Krzysztof Mizerski, Krzysztof Nowożyński, Krzysztof Opaliński, Marzena Osuch, Tomasz Petelski, Erin Pettit, Piotr Senatorski, Joanna Szcucka, Piotr Środa, Krzysztof Teisseyre, Luciano Telesca, Timo Tiira, Tomasz Werner, Joanna Wibig, Monika Wilde-Piórko, Marcin Witek, and Paweł Rowiński who assured high professional standard of all contributions. It should be mentioned that few of these people did their job several times, which is strongly appreciated. In addition, Anna Dziembowska did titanic job assuring the good quality of English of all chapters and helped us with handing this book, as well. She prepared the appendix to this preface honoring the previous Institute’s workers who passed away during the last decade, which we think is strongly required to be included in this book. Finally, we would like to thank all the authors of the chapters for their involvement and the passion which resulted in provision of unique information about the history of the Institute of Geophysics PAS. The book is divided into two parts. In the first, the history and achievements of the Institute of Geophysics PAS are comprehensively described, whereas in the second part the exemplary current research results and the method used in geophysics are presented.

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