Editorial

Foreword to the Special Issue “Inverse Problems and Nonlinear Phenomena”

<https://doi.org/10.1515/jiip-2021-2078>

Following the five International Conferences “Quasilinear Equations, Inverse Problems and Their Applications” (QIPA) from 2015 to 2019, the Sixth International Conference was held again at the Moscow Institute of Physics and Technology (MIPT), during the period from November 30 to December 2, 2020. These conferences were organized by the Moscow Institute of Physics and Technology (MIPT) with the support of The Eurasian Association on Inverse Problems (EAIP) (<http://www.eurasianip.org/events/past-meetings.html>). The scientific program of the latest QIPA conference was jointly organized by Professors Alexander Shananin (Chair, MIPT, Russia), Roman Novikov (co-chair, Ecole Polytechnique, France) and Iskander Taimanov (co-chair, Sobolev Institute of Mathematics, Russia), in cooperation with the well-known experts Mikhail Belishev (PDMI RAS, Russia), François Golse (Ecole Polytechnique, France), Alemdar Hasanov Hasanoglu (Kocaeli University, Turkey), Thorsten Hohage (University of Göttingen, Germany), Sergey Kabanikhin (ICM&MG SB RAS, Russia), Andrey Mironov (Novosibirsk State University, Russia), Leonid Pestov (Immanuel Kant BFU, Russia), Igor Petrov (MIPT, Russia), Vladimir Romanov (Sobolev Institute of Mathematics, Russia), Jean-Claude Saut (Université Paris-Sud, France), Otmar Scherzer (University of Vienna, Austria), Shuhua Zhang (Tianjin UFE, China).

The purpose of this series of conferences is to establish strong collaboration links among the research groups of Eurasian universities and worldwide leading researchers in inverse problems, and also to encourage the participation of young scientists. The conferences addressed both theoretical and applied aspects of inverse problems.

This Special Issue contains papers based on plenary and invited presentations at QIPA conferences. The included papers cover a number of topics in inverse problems and application, as well as the related problems in nonlinear phenomena, which we hope will be of interest to our readers.

We thank the authors, as well as dozens of anonymous referees, for their work and contributions, bringing these research results to our readers. We would like to thank the Moscow Institute of Physics and Technology and the Russian Foundation for Basic Research for the financial support. Organization of the QIPA conference in 2020 was also fulfilled in the framework of PRC n 2795 CNRS/RFBR: “Problèmes inverses et intégrabilité”. Special thanks also go to Professor Sergey Kabanikhin, Editor-in-Chief of the Journal of Inverse and Ill-Posed Problems for his kind arrangements of this Special Issue.

March 2021

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