## PREFACE

The international conference 13th Serbian Mathematical Congress 2014, was held in Vrnjačka Banja, Serbia from May 22th to 25th, 2014.

The main organizer of this conference was Faculty of Sciences and Mathematics University of Niš in cooperation with the Mathematical Society of Serbia, Mathematical Faculty Belgrade and Faculty of Natural Sciences, Kragujevac, Serbia. The Congress attracted over 260 participants from about 30 countries from all over the world. Countries that have given the participants are: Serbia, Slovenia, Russia, Ukraine, Macedonia, India, Germany, Bulgaria, Romania, Bosnia and Herzegovina, the United States, Greece, Turkey, Hungary, Italy, France, Great Britain, Czech Republic, Netherlands, Ireland, Montenegro, Mexico, China, Croatia, Lithuania, Israel, Kuwait, Albania, Malaysia, Japan, Poland, Brazil, Spain, Portugal, Israel, ... The Congress consisted of 11 plenary, 52 invited lectures and 76 short communications. A large contribution to the Congress gave members of Academy of Sciences Mileva Prvanović, Stevan Pilipović, Gradimir Milovanović, Aleksandar Ivić, Miodrag Mateljević, Dragoš Cvetković, Milo Marjanović, Vojislav Marić, Andrei Vesnin, Janos Pintz, Nikolay Rozov, the president of Mathematical Society of Serbia Aleksandar Lipkovski, eminent professors like David Blair, Louis Kauffman, Josef Mikes, Uday Chand De, Dragan Marušič, Manfred Droste, ..., but also participants who helped us organize Congress at the highest scientific level.

Visual identity of the Congress was created by distinguished Professor and artist Slavik Jablan.

Congressional Award for achievements in mathematical sciences for young scientists was awarded to Dragan Cvetkovic-Ilić, professor of the Faculty of Sciences and Mathematics, Niš, Serbia. Assigning award drew attention to the quality of young scientists in the country, but also worldwide.

Part of the Congress was dedicated to teaching mathematics and computer sciences and many primary and secondary schools teachers took part at the Congress. Mathematical Society of Serbia organized the exhibition, dedicated to the golden ratio and the debate on the teaching of Mathematics.

The Congress was held in the framework of six sections:

Section 1: Set Theory, Topology, Logic, Algebra, Discrete Mathematics, Numbers Theory;

Section 2: Numerical Mathematics, Applied Mathematics;

Section 3: Real and Functional Analysis, Differential Equations, Complex Analysis, statistics and probability;

Section 4: Geometry, Algebraic Geometry and Topology, Mathematical Physics;

Section 5: History, Learning, Teaching Mathematics and Computer Science;

Section 6: Theoretical Computer Science, Computer Science.

Congress is traditional and has a long history. Since the First Serbian Mathematical Congress, many colleagues have been supporting the conference in our history. Many researchers and educators who had been involved in various related fields of Mathematics have joined in the successive conferences and have exchanged views and shared common perceptions on Mathematics. Such circumstances have given further initiative for the scientific research and education and encouraged the development of Mathematical thinking.

We all had and still have to face hard times. While in former decades new media and tools forced us to break with old habits and renew Mathematical education totally, there are now economical and re-organizing problems of educational systems all over the world and in Serbia as well.

By promoting such an international cooperation, we will be able to have a more fruitful future by joining together. For us, who were entrusted to organize the meeting, all the steps done at former Serbian Mathematical Congresses were shining examples, which we tried to follow. We are grateful to Professors Neda Bokan and Stevan Pilipović who have organized previous congresses.

This issue of FILOMAT contains papers presented at the 13th Serbian Mathematical Congress. The papers were accepted for publication after having been subjected to the usual strict reviewing process of the journal. The Sectional Editors were Professors Miroslav Ćirić, Marko Petković, Dragana Cvetković-Ilić,

Ljubica Velimirović, Mića Stanković, Biljana Popović, Jelena Ignjatović. The Editors express their sincere gratitude to the reviewers for their thorough reports and to the Editors in chief of FILOMAT for their support, in particular, to Academician Vladimir Rakočević and Professor Dragan Djordjević.

Particulary, we thank to participants who helped us organize and realize the conference at the highest scientific level.

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Editors: Ljubica Velimirović and Mića Stanković

Department of Mathematics, Faculty of Science and Mathematics, University of Niš, Serbia

Email address: vljubica@pmf.ni.ac.rs, stmica@ptt.rs