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Proceedings of the international workshop
OPERATORS IN MORREY-TYPE SPACES AND APPLICATIONS
(OMTSA 2011)

dedicated to 70th birthday of Professor V.I. Burenkov

held through May 20-27, 2011

at the Ahi Evran University, Kirşehir, Turkey

Volume 2

OMTSA 2011

Through May 20-27, 2011 the international workshop "Operators in Morrey-type spaces and applications" (OMTSA 2011) was held at the Ahi Evran University (Kirsehir, Turkey). It was dedicated to 70th birthday of Professor V.I. Burenkov, one of the most active researchers in the theory of operators in general Morrey-type spaces.

Morrey spaces were introduced by Charles Morrey in 1938. They appeared to be very useful in many areas of mathematics first of all in real analysis, partial differential equations, and mathematical physics. There are a number of books on Morrey spaces and applications and numerous papers.

In nineties of the XX century an active study of general Morrey-type spaces started which are characterized by a functional parameter. A number of results on boundedness of classical operators in general Morrey-type spaces were obtained. However in all these results only sufficient conditions on the functional parameters, characterizing general Morrey-type spaces, ensuring boundedness were obtained.

At the beginning of the XXI century there were new active developments in this area. They resulted in obtaining, for a certain range of the numerical parameters necessary and sufficient conditions on the functional parameters ensuring boundedness of classical operators of real analysis from one general Morrey-type space to another one. Results of such type are very important for the development of contemporary real analysis and its applications first of all to partial differential equations. Many well-known mathematicians participated in these activities and their results were published in leading mathematical journals and presented at numerous international conferences. However in this area there are still many urgent open problems.

This workshop was the first one completely dedicated to Morrey-type spaces. It resulted in giving a good understanding of current state of art in this area: main results, ideas, methods, applications, perspectives of developments in the theory of operators in general Morrey-type spaces. Around 70 mathematicians from 15 countries took part in the workshop.

The workshop was organized at exceptionally high level and participants enjoyed taking part in OMTSA 2011.

Volume 3, number 3 of the Eurasian Mathematical Journal contained expositions of plenary lectures delivered by V.I. Burenkov (UK/Kazakhstan), V.S. Guliyev (Azerbaijan/Turkey, the chairman of OMTSA 2011), P.G. Lemarié-Rieusse (France), M.A. Ragusa (Italy), and W. Sickel (Germany).

This issue contains the second parts of expositions of plenary lectures by V.I. Burenkov and W. Sickel and contributions of the participants of OMTSA 2011.