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The Fifth International Workshop – 2012 "Constructive Methods For Non-Linear Boundary Value Problems"

Miklós Rontó



**THE FIFTH INTERNATIONAL WORKSHOP – 2012
“CONSTRUCTIVE METHODS FOR NON-LINEAR BOUNDARY
VALUE PROBLEMS”**

MIKLÓS RONTÓ

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In the period from 28th June to 1st July, 2012, the Fifth International Workshop – 2012 “*Constructive methods for non-linear boundary-value problems*” had taken place in Tokaj, Hungary. The workshop was organised by the Institute of Mathematics of the University of Miskolc and Institute of Mathematics of the Academy of Sciences of Czech Republic in cooperation with the Regional Committee of the Hungarian Academy of Sciences in Miskolc and Junior Mathematical Society in Miskolc.



The scope of the conference covered various topics related to the modern theory of boundary value problems in a broad sense, including initial value and periodic problems for functional differential equations, certain singular Sturm–Liouville problems, the method of lower and upper functions, stability of fixed iterative methods, limit cycles, travelling waves in lattices, problems with state-dependent impulses, positivity of Green’s operator for problems for functional differential equations, singular

boundary value problems, semilinear hyperbolic differential and functional differential equations, comparison principles, invariant manifolds of extensions of dynamical systems on a torus, coupled fixed points for multivalued operators, numerical-analytic methods, variational inequalities in elasticity, delayed matrix exponents, Lambert functions, sign-constant and oscillating solutions, properties of differential equations with reflections, discontinuous differential equations with delayed or advanced arguments, and difference equations with p -Laplacians.

The workshop was attended by more than 50 researchers from Brasil, Chile, Israel, Czech Republic, Hungary, Latvia, Roumania, Spain, Slovak Republic, and Ukraine, who held 20 and 30-minute lectures.

The Organising Committee of the workshop consisting of V. Berinde, J. Diblík, P. Drábek, M. Fečkan, P. Körtési, V. Marinec, M. Perestyuk, I. Rachůnková, A. Rontó, A. Samoilenko, F. Sadyrbaev, S. Staněk, J. Szigeti, M. Tvrdý, and the author of this note as a chairman, gratefully acknowledges the financial support provided by the following funds and institutions:

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This meeting was a continuation of the four previous workshops held in Miskolc in 2000 and 2003, in Sárospatak in 2006, and in Eger in 2009 [1, 2].

We hope that the fruitful tradition of this kind of “compact-style” international meetings focusing at exchange of ideas of researchers working in closely related fields will continue in the future.

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Author’s address

Miklós Rontó

Department of Analysis, University of Miskolc, 3515 Miskolc-Egyetemváros, Hungary

E-mail address: matronto@uni-miskolc.hu