

Preface

The International Workshop on Multi-Rate Processes and Hysteresis (MURPHYS) conference series focuses on multiple scale systems, singular perturbation problems, phase transitions and hysteresis phenomena occurring in physical, biological, chemical, economical, engineering and information systems. The 6th edition was hosted by Stefan cel Mare University in the city of Suceava located in the beautiful multicultural land of Bukovina, Romania, from May 21 to 24, 2012. This continued the series of biennial multidisciplinary conferences organized in Cork, Ireland from 2002 to 2008 and in Pécs, Hungary in 2010.

The MURPHYS 2012 Workshop brought together more than 50 researchers in hysteresis and multi-scale phenomena from the United State of America, the United Kingdom, France, Germany, Italy, Ireland, Czech Republic, Hungary, Greece, Ukraine, and Romania. Participants shared and discussed new developments of analytical techniques and numerical methods along with a variety of their applications in various areas, including material sciences, electrical and electronics engineering, mechanical engineering and civil structures, biological and eco-systems, economics and finance.

The Workshop was sponsored by the European Social Fund through Sectoral Operational Program Human Resources 2007-2013 (PRO-DOCT) and Stefan cel Mare University, Suceava. The Organizing Committee was co-chaired by Mihai Dimian from Stefan cel Mare University, Suceava (Romania), Amalia Ivanyi from the University of Pecs (Hungary), and Dmitrii Rachinskii from the University College Cork (Ireland).

All papers published in this volume of *Journal of Physics: Conference Series* have been peer reviewed through processes administered by the Editors. Reviews were conducted by expert referees to the professional and scientific standards expected of a proceedings journal published by IOP Publishing. The Guest Editors wish to place on record their sincere gratitude to Miss Sarah Toms for the assistance she provided during the publication process.

More information about the Workshop can be found at <<http://www.murphys.usv.ro/>>

Mihai Dimian and Dmitrii Rachinskii

Guest Editors for *Journal of Physics: Conference Series*

Proceedings of the 6th International Workshop on Multi-Rate Processes and Hysteresis

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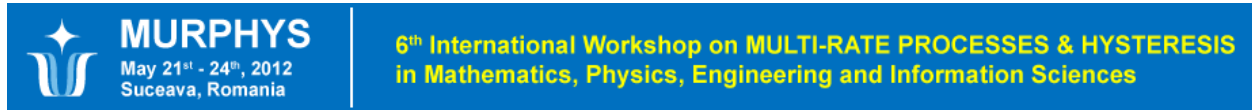


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