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2009***

**Solomon Saltiel  
Alexander Dreischuh  
Ivan Christov**  
*Editors*

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## Introduction

The International Conference on Ultrafast and Nonlinear Optics (UFNO 2009), organized by the Department of Quantum Electronics of the Faculty of Physics, Sofia University "St. Kliment Ohridski", and co-sponsored by the Science Fund of Sofia University (Bulgaria), the National Science Fund (Bulgaria), SPIE, the Extreme Light Infrastructure Project (EU), and by the Foundation for Theoretical and Computational Physics and Astrophysics (Bulgaria), took place 14–18 September 2009 in the city of Burgas, Bulgaria.

The organization of UFNO 2009 was initiated by the late Professor Solomon Saitiel who continued to work tirelessly as a co-Chair of the Conference until his unexpected death on May 7, 2009. Despite the great loss for his family, colleagues, and for the whole scientific community, the UFNO 2009 Committee was determined to go forward with the organization of a successful conference, which was decided to be dedicated to the memory of Solomon Saitiel.

Solomon Saitiel was born in 1947 in Sofia, Bulgaria. In 1973 and 1976 he got his M.Sc. and Ph.D. degrees in Physics from the Moscow State University (Russia). His Doctoral Thesis defended in 1995 at Sofia University (Bulgaria) was devoted to Multiphoton Processes in Crystals and Semiconductor Glasses. Since 1996 he was full Professor in Physics at Sofia University. In 2004 Solomon Saitiel became Corresponding Member of Bulgarian Academy of Science. His scientific activities were closely related to the topics of UFNO 2009: nonlinear optics, cascade nonlinear-optical processes, optical phase conjugation, nonlinear-optical susceptibilities, high resolution laser spectroscopy, pico- and femtosecond lasers, generation and measurement of ultra short pulses, just to mention a few. He authored three student textbooks, two book chapters, several review papers in nonlinear optics, and more than 190 publications in refereed journals. Prof. Solomon Saitiel was an extremely good teacher, eager to transfer his knowledge and scientific curiosity to young scientists. He supervised 6 PhD and 28 Master students, who are working now in various research centers around the world. Prof. Saitiel was Vice-President of the Bulgarian Physical Society, member of the Optical Society of America and of the European Physical Society, Scientific Secretary of the Scientific Board of Radiophysics, Physical and Quantum Electronics of the Higher Testimonial Committee of Bulgaria.

The main goal of the International Conference on Ultrafast and Nonlinear Optics (UFNO'09) was to create a networking platform enabling exchange of recent research advances in the field of ultrafast and nonlinear optics, stimulate discussions about novel concepts and applications, to promote dissemination of scientific results, and to support discussions and network among researchers. Eighty researchers from 20 countries (Australia, Austria, Belgium, China, England,

France, Germany, Greece, Hungary, Israel, Italy, Japan, Lithuania, Romania, Russia, Sweden, Switzerland, Tunisia, USA, and Bulgaria) participated at UFNO 2009. Seventeen invited talks, 25 contributed talks and 19 posters were presented during the Conference. This proceedings volume is comprised of 32 selected full-text papers by conference participants.

The Organizing Committee would like to thank all lecturers and participants for their contribution to this Conference. We are also grateful to SPIE for providing the three Best Student Paper Awards, and for publishing these proceedings.

**Alexander Dreischuh**  
**Ivan Christov**