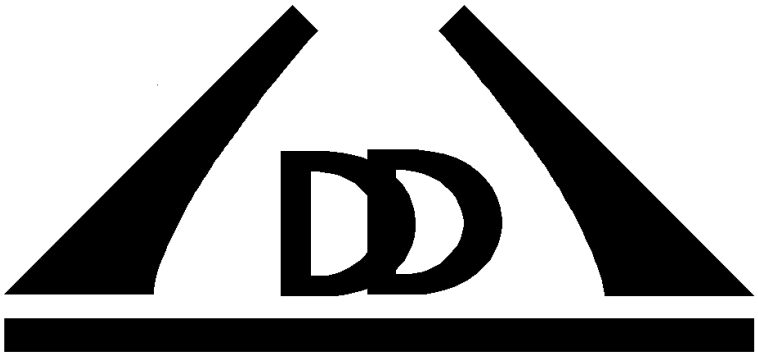
PROCEEDINGS of the International Conference



DAYS on DIFFRACTION 2008

June 3 – 6, 2008
St.Petersburg, Russia

Proceedings of the International Conference "Days on Diffraction" 2008
June 3 – 6, 2008, St.Petersburg, Russia

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The seminar is sponsored by

Russian Foundation
for Basic Research

IEEE ED/MTT/AP
St.Petersburg Chapter

Russian Academy of Sciences

IEEE Catalog No.: CFP08489-PRT
ISBN: 978-5-9651-0277-8

Preface

The International Conferences **"Days on Diffraction"** are annually held by the Faculty of Physics of St.Petersburg University, St.Petersburg Branch of V.A. Steklov Mathematical Institute and Euler International Mathematical Institute of the Russian Academy of Sciences.

Approximately 140 scientists from all over the world took part in the **"Days on Diffraction - 2008"** Conference. The Organizing Committee is thankful to all the participants. We appreciate their presentations which have been made during plenary, parallel and poster sessions. Our special gratitude is to the authors of 38 papers selected for publication in the *Proceedings* for preparation of their manuscripts in accordance with the required rules.

The Organizing Committee

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In memory of Valery E. Grikurov

Valery Grikurov, who was the heart and the soul of "Days on Diffraction", untimely passed away on February 15, 2008. He served as the secretary of this conference since 1998 and his great efforts transformed it into truly international event with more than one hundred talks presented annually.

Valery was born on November 25, 1950 in a family of musicians. His father for a long period was the principal conductor of the Mikhailovsky Opera House and his mother was a world-renowned pianist, but Valery did not follow the family tradition. However, genuine harmony and absence of any false note were true imperatives of his life.

He graduated from the Leningrad State University in 1974 with Master Degree in Mathematical Physics and received his Ph.D. in Theoretical and Mathematical Physics in 1980. In 1974–1983 he was assistant professor at the Northwestern Polytechnic Institute and then moved to the Higher Military School of Engineering (both in Leningrad).

In 1991 Valery returned to the St. Petersburg State University, where he became associate professor of mathematics at the Faculty of Physics and gave various lecture courses (linear algebra, calculus, ODEs, calculus of variations, complex analysis, distribution theory, PDEs, asymptotic analysis, diffraction theory, and numerical methods). He visited as an invited lecturer and researcher a number of universities worldwide. We mention University of Lund (Sweden), University of Minnesota (USA), Bogazici University (Turkey), to list a few.

Valery was a prominent figure in the St. Petersburg diffraction community and authored many fundamental works concerning Gaussian beams, interference of surface waves, trapped modes, periodic structures, nonlinear effects, etc. His book "Diffraction Theory: The Sommerfeld–Malyuzhinets Technique" (co-authored with V.M. Babich and M.A. Lyalinov) was published by the Alfa-Science Publishing House in 2007.

Valery will be remembered as a talented, courageous, reliable, and truly cheerful friend.

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Speaker is given in bold.