PROCEEDINGS OF SPIE

ICONO 2007: Nonlinear Space-Time Dynamics

Yuri Kivshar
Nikolay Rosanov
Editors

28 May–1 June 2007
Minsk, Belarus

Organized by
National Academy of Sciences (Belarus) • Russian Academy of Sciences • M.V. Lomonosov Moscow State University (Russia) • B.I. Stepanov Institute of Physics (Belarus) • International Science and Technologies Center

Sponsored by
National Academy of Sciences (Belarus) • Russian Academy of Sciences • M.V. Lomonosov Moscow State University (Russia) • Belarus Foundation for Basic Research • Belarus Physical Society • Russian Physical Society • International Science and Technologies Center • SPIE Russia Chapter

Published by
SPIE

Volume 6725

Proceedings of SPIE, 0277-786X, v. 6725

The papers included in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. The papers published in these proceedings reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from this book:
Author(s), "Title of Paper," in *ICONO 2007: Nonlinear Space-Time Dynamics*, edited by Yuri Kivshar, Nikolay Rosanov, Proceedings of SPIE Vol. 6725 (SPIE, Bellingham, WA, 2007) Article CID Number.

ISSN 0277-786X
ISBN 9780819468826

Published by
SPIE
P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
SPIE.org

Printed in the United States of America.

Publication of record for individual papers is online in the SPIE Digital Library.

SPIE Digital Library

SPIEDigitalLibrary.org

Paper Numbering: Proceedings of SPIE follow an e-First publication model, with papers published first online and then in print and on CD-ROM. Papers are published as they are submitted and meet publication criteria. A unique, consistent, permanent citation identifier (CID) number is assigned to each article at the time of the first publication. Utilization of CIDs allows articles to be fully citable as soon they are published online, and connects the same identifier to all online, print, and electronic versions of the publication. SPIE uses a six-digit CID article numbering system in which:

- The first four digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B … 0Z, followed by 10-1Z, 20-2Z, etc.

The CID number appears on each page of the manuscript. The complete citation is used on the first page, and an abbreviated version on subsequent pages. Numbers in the index correspond to the last two digits of the six-digit CID number.

Contents

NONLINEAR OPTICS OF FEW-CYCLE PULSES AND SUPERCONTINUUM RADIATION

DYNAMICS OF SEMICONDUCTOR AND FIBER LASERS AND VCSELs

Conference Committee

ICONO 2007 Program Committee Chairs

Pavel A. Apanasevich, B.I. Stepanov Institute of Physics (Belarus)
Gerd Leuchs, Universität Erlangen-Nürnberg (Germany)
Victor Zadkov, M.V. Lomonosov Moscow State University (Russia)

ICONO 2007 Scientific Secretary

Alexander Gurskii, B.I. Stepanov Institute of Physics (Belarus)

Conference Chairs

Yuri Kivshar, The Australian National University (Australia)
Nikolay Rosanov, Research Institute for Laser Physics (Russia)

Conference Committee

Demetrios Christodoulides, University of Central Florida (USA)
William Firth, University of Strathclyde (United Kingdom)
Falk Lederer, Friedrich-Schiller-Universität Jena (Germany)
Natalia Loiko, B.I. Stepanov Institute of Physics (Belarus)
Sergey Odulov, Institute of Physics (Ukraine)
Kestutis Staliunas, Universitat Politècnica de Catalunya (Spain)
Anatoly Sukhorukov, M.V. Lomonosov Moscow State University (Russia)

Symposium Committees

ICONO/LAT 2007 General Chairs

Sergey Bagayev, Institute of Laser Physics (Russia)
Anatoly Rubinov, B.I. Stepanov Institute of Physics (Belarus)

ICONO/LAT 2007 General Vice-Chairs

Nikolai Kazak, B.I. Stepanov Institute of Physics (Belarus)
Vladimir Makarov, M.V. Lomonosov Moscow State University (Russia)

ICONO/LAT 2007 Organizing Committee

Committee Chair

Vladimir Kabanov, B.I. Stepanov Institute of Physics (Belarus)

Committee Vice-Chairs

Vitaly Plavski, B.I. Stepanov Institute of Physics (Belarus)
Pavel Mikheev, M.V. Lomonosov Moscow State University (Russia)

Committee Members

Maria Drabovich, M.V. Lomonosov Moscow State University (Russia)
Alexander Grabchikov, B.I. Stepanov Institute of Physics (Belarus)
Valeri Gudelev, B.I. Stepanov Institute of Physics (Belarus)
Vyacheslav Dlugunovich, B.I. Stepanov Institute of Physics (Belarus)
Eugene Ivakin, B.I. Stepanov Institute of Physics (Belarus)
Maria Kulagina, B.I. Stepanov Institute of Physics (Belarus)
Boris Kuntsevich, B.I. Stepanov Institute of Physics (Belarus)
Svetlana Kurilkina, B.I. Stepanov Institute of Physics (Belarus)
Galina Ledneva, B.I. Stepanov Institute of Physics (Belarus)
Eugene Lutsenko, B.I. Stepanov Institute of Physics (Belarus)
Nikolai Malevich, B.I. Stepanov Institute of Physics (Belarus)
Andrey Olenin, M.V. Lomonosov Moscow State University (Russia)
Valeri Pavlenko, B.I. Stepanov Institute of Physics (Belarus)
Vyacheslav Pavlovskii, B.I. Stepanov Institute of Physics (Belarus)
Gennadi Ryabtsev, B.I. Stepanov Institute of Physics (Belarus)
Andrei Sobchuk, B.I. Stepanov Institute of Physics (Belarus)
Antonina Tretyakova, B.I. Stepanov Institute of Physics (Belarus)
Vyachedslav Chizhevskii, B.I. Stepanov Institute of Physics (Belarus)
Roman Shulyakovski, B.I. Stepanov Institute of Physics (Belarus)