PROCEEDINGS OF SPIE

Photonics Applications in Astronomy, Communications, Industry, and High Energy Physics Experiments 2022

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Editors

15–17 September 2022
Lublin, Poland

Organized by
Lublin University of Technology (Poland)
Warsaw University of Technology (Poland)
Photonics Society of Poland (Poland)
Polish Optoelectronics Committee of the Association of Polish Electrical Engineers (Poland)
Committee of Electronics and Telecommunications, Polish Academy of Sciences (Poland)

Published by
SPIE

Volume 12476

Proceedings of SPIE 0277-786X, V. 12476

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Photonics Applications in Astronomy, Communications, Industry, and High Energy Physics Experiments 2022,
edited by Ryszard S. Romaniuk, Andrzej Smolarz, Waldemar Wójcik, Proc. of SPIE Vol. 12476, 1247601
© 2022 SPIE · 0277-786X · doi: 10.1117/12.2665375

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Please use the following format to cite material from these proceedings:
Author(s), "Title of Paper," in *Photonics Applications in Astronomy, Communications, Industry, and High Energy Physics Experiments 2022*, edited by Ryszard S. Romaniuk, Andrzej Smolarz, Waldemar Wójcik, Proc. of SPIE 12476, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 0277-786X
ISSN: 1996-756X (electronic)

ISBN: 9781510660595
ISBN: 9781510660601 (electronic)

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

The WILGA winter and summer meetings on Photonics Applications were initiated by the PERG-ELHEP Research Laboratory at the Institute of Electronic Systems of Warsaw University of Technology, Poland in 1995. The meetings started to be numbered with the winter edition of 1998, thus this year the summer edition was the 50th jubilee. The Photonics Engineering Research Group joined forces with the Electronics Laboratory for High Energy Physics Experiments Laboratory at IES WUT to start organizing international research meetings on the integration of photonics, electronics and mechatronics in demanding advanced applications.

To start a new series of conferences is not always easy. In this particular case, the factors that strongly supported the beginning process for these meetings had domestic and international cooperation with young research teams, friendly cooperation with key research organizations, international support from SPIE and IEEE, and domestic support from the Association of Polish Electrical Engineers. The essential factor was involvement of the initiating laboratory as well as international cooperation from laboratories like Deutsches Elektronen Synchrotron DESY in Hamburg, Germany; CERN in Geneve, Switzerland; Fermilab near Chicago, USA; and later with TJNAF in Newport News, USA; ITER in Cadarache, France; FAIR/GSI in Darmstadt, Germany; etc.

Since 2002 SPIE – The International Society for Optics and Photonics generously agreed to support the WILGA Symposium and publish the proceedings of these young researchers' meetings in the Proceedings of SPIE. The volumes were published annually from joint winter and summer editions of WILGA Symposium under the common title Photonics Applications in Astronomy, Communications, Industry and High-Energy Physics Experiments. For a number of years, SPIE has generously funded awards for the best student presentation in WILGA.

WILGA, the Photonics Applications Symposium, was held at a small village resort owned by Warsaw University of Technology, Poland and is located 50 kilometers up the Vistula river from Warsaw. During the 25 years of numbered editions of the WILGA Symposium on Photonics Application, the meetings gathered more than 6000 young researchers, among them the majority of Ph.D. students active in Photonics, who published more than 2000 papers in Proceedings of SPIE, and 1000 papers elsewhere.

The WILGA 2021 and 2022 Symposia on Photonic Applications gathered, partly via virtual links, a significant number of scholars from Ukraine who submitted content for publication which is reflected in this volume of Proceedings.

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