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Jan Masajada Wacław Urbańczyk Editors

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## Introduction

The 22<sup>nd</sup> Polish-Slovak-Czech Optical Conference on Wave and Quantum Aspects of Contemporary Optics was held on 5–9 September 2022 in Wojanów Palace located near Jelenia Góra, the renovated historical manorial residency serving now as a modern wellness and conference center. The conference was a continuation of the biennial meetings of the Polish, Czech, and Slovak optical communities organized alternately in these three countries. The first meeting was held in 1972 in Rusava (Czech Republic) and since then this series of conferences known from early 1990s under the name "Wave and Quantum Aspects of Contemporary Optics" has been continued almost regularly with short breaks in the 1980s and most recently in 2020 due to the Covid-19 pandemic.

The conference was organized by the Department of Optics and Photonics, Wroclaw University of Science and Technology, Poland. It covered many topics related to modern optics, including quantum and wave optics, XUV optics, optical trapping, optical sensing, optical imaging, eye and vision, fiber optics, and photonic technologies. The conference gathered 143 participants, including 86 from Poland, 42 from the Czech Republic, 14 from Slovakia, and 1 from Germany, who had an opportunity to listen to 21 invited and 56 regular lectures within 16 oral sessions. There was also one poster session with 51 poster presentations on a wide range of topics. This proceedings volume contains 41 peer-reviewed contributions based on the conference presentations.

In conclusion, we would like to thank the members of the scientific committee, organizing committee, invited speakers, session chairs and all the participants for their support and contribution to this conference, which, we believe, provided a great opportunity to exchange ideas on the latest optical research as well as to meet old friends and establish new personal contacts. The next 23<sup>rd</sup> Slovak-Czech-Polish Optical Conference on Wave and Quantum Aspects of Contemporary Optics will be held in Slovakia in September 2024.

Jan Masajada Wacław Urbańczyk