

# XIII International Workshop on Quantum Optics (IWQO-2019): preface

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International Workshop on Quantum Optics is a regular conference on fundamental and applied quantum optics. It is held in Russia with the participation of representatives of foreign research groups. The first workshop was organized in October 1989 in Kazan by Professor Vitaly Samartsev (Zavoisky Physical-Technical Institute, Kazan, Russia). Currently the Workshops are held quadrennially in different places of Russia (2003 – St. Petersburg, 2007 – Samara, 2011 – Volgograd, 2015 – Troitsk, Moscow).

XIII International Workshop on Quantum Optics (IWQO-2019) was held in Vladimir on the base of Vladimir State University named after A.G. and N.G. Stoletovs (VISU, <http://www.vlsu.ru/index.php?id=183>) with the participation of the E.K. Zavoisky Physical-Technical Institute – Subdivision of the Federal Research Center «Kazan Scientific Center of Russian Academy of Sciences» (Kazan, Russia; <http://kfti.knc.ru/eng>) and Institute for Spectroscopy of the Russian Academy of Sciences (<https://isan.troitsk.ru/en>). Moscow State Pedagogical University Young Minds Section (<http://mspu-ym.ru>) of the European Physical Society provided organizational support for the conference.

The IWQO-2019 topics cover a broad range of actual problems of quantum optics and related fields, including quantum informatics, quantum technologies, atomic optics and nano-optics, spectroscopy and microscopy of single quantum emitters, functional optical materials, photonics and interaction of radiation with matter, ultrafast spectroscopy, coherent and nonlinear optics, photon echo and optical transients, plasmonics and nanophotonics.

The scientific program of the meeting included 15 plenary lectures, 27 invited talks, 45 oral talks, 61 poster talks, authored in total by 365 scientists from 23 countries (Australia, Belarus, Canada, Denmark, France, Germany, Israel, Iran, Italy, Japan, Mongolia, Netherlands, Poland, Portugal, Russia, Saudi Arabia, Singapore, Spain, Taiwan, Ukraine, United Arab Emirates, United Kingdom, USA).

The students and young scientists at IWQO-2019 displayed their research findings in poster section while some were selected to give oral presentations. Their participation included a competition for the Best Student/Young Scientist Talk Award. The winners of the awards were Anatoly Shukhin (Zavoisky Physical-Technical Institute, Kazan, Russia) for oral talk and Konstantin Kuderyarov (Lebedev Physical Institute RAS, Moscow, Russia) for poster talk. As an additional side-event for the young scientists there was a meeting organized by the MSPU Young Minds Section of the European Physical Society.

The IWQO-2019 was accompanied with the lab-tour over scientific laboratories of the Vladimir State University as well as city tour and visits to historical places. The organizers acknowledge financial support from the Russian Foundation for Basic Research (project No 19-02-20080); [www.rfbr.ru](http://www.rfbr.ru)) and Ministry of Science and Higher Education of the Russian Federation (<https://minobrnauki.gov.ru>).

This issue of the EPJ Web of Conferences has collected the brief information about IWQO-2019 as well as the summaries of plenary and invited lectures, conference talks and poster presentations. The issue is recommended for specialists who work in the field quantum optics and technologies, as well as for M.S. and Ph.D. students. The full program and details about the conference can be found on the web-site <http://iwqo.su>.



Photo of the IWQO-2019 participants in front of the main building of VISU. September 12, 2019



Conference participants near the Golden Gates in historical center of Vladimir