

Eighth Russian Workshop on Fibre Lasers

S.A. Babin, S.L. Semjonov

The eighth Russian Workshop on Fibre Lasers was held in Novosibirsk, Russia on 3–7 September 2018. The previous workshops took place in Novosibirsk (2007, 2012, 2014 and 2016), Saratov (2008), Ufa (2009) and Ulyanovsk (2010). The 2017 Workshop was organised by the Institute of Automation and Electrometry (IAE), Siberian Branch, Russian Academy of Sciences (RAS) (Novosibirsk); the Fiber Optics Research Center (FORC), RAS (Moscow); Novosibirsk State University; and the Institute of Computational Technologies, Siberian Branch, RAS. The objectives of the workshop were to highlight recent advances in fibre lasers and their applications and ensure an exchange of views between Russian-speaking scientists working at leading Russian and foreign research, technology and education centres.

The workshop co-chairs were Academician E.M. Dianov, scientific director of FORC, and Academician A.M. Shalagin, scientific director of IAE. The Organising Committee was chaired by Corresponding Member M.P. Fedoruk, rector of Novosibirsk State University, and the Program Committee was chaired by S.A. Babin, director of IAE.

About 140 attendees from research institutes, higher education institutions and industrial companies of a dozen of Russian cities and also from the United States, the United Kingdom, Germany, Belgium and Denmark were registered for the workshop.

The scientific program of the workshop was divided into the following sessions:

1. New gain media, configurations and operating modes of fibre lasers.
2. Pulsed hybrid and fibre lasers, high-power and ultra-short pulses.
3. Nonlinear frequency conversion techniques for fibre lasers: SRS, SBS, parametric, harmonic and terahertz generation.
4. Applications of fibre lasers: communication systems, sensors, biomedicine, materials processing and photomodification. Optical information technologies.

5. Laser optics and components: optical fibre, hybrid and fibre cavity elements, interferometers, diffractive optics and integrated optics.

6. Specialised nanophotonics session.

7. Poster session.

There were a number of events held jointly with the workshop: Optical and Information Technologies youth contest/conference, including review lectures by leading scientists; Photonic Technologies for Industry roundtable discussion aimed at formulating proposals regarding the cooperation between scientific institutions and manufacturers; and exhibition of equipment and two specialised presentation seminars of fibre-optic products from IC Specpostavka and Special Systems. Photonics, LLC.

At the workshop, researchers presented 1 plenary, 31 invited and 51 oral reports and 34 posters. The reports demonstrated a general growth of the level of work performed in Russia in the field of fibre lasers and their applications, which are also integrated into adjacent fields of fibre optics and photonics. The workshop became a working platform for discussing current issues and research plans of scientists and engineers, including both basic issues in the physics of fibre lasers and applications of laser instruments and systems, in particular in fibre-optic sensors, telecommunications and biomedical systems. The creative atmosphere of the workshop was helpful for accelerating the implementation of promising ideas and approaches in the manufacture of fibre lasers and systems in Russia and for the advent and development of new research directions.

In the closing session, S.A. Babin, chair of the Program Committee, expressed gratitude to the attendees coming from various regions of Russia and from abroad. He also emphasised that the workshop was traditionally held in Russian, owing to which the reports were immediately available to a wide range of Russian scientists and engineers. M.P. Fedoruk, chair of the Organising Committee, pointed out the importance of the development of fibre optics in Russia via close interaction between science and education.

Beginning in 2016, papers dealing with fibre laser systems and fibre optics submitted by Russian scientists are published in pre-New Year specialised issues of *Kvantovaya Elektronika* (Quantum Electronics).

S.A. Babin Institute of Automation and Electrometry, Siberian Branch, Russian Academy of Sciences, prosp. Akademika Koptuyuga 1, 630090 Novosibirsk, Russia; Novosibirsk State University, ul. Pirogova 2, 630090 Novosibirsk, Russia; e-mail: babin@iae.nsk.su;
S.L. Semjonov Fiber Optics Research Center, Russian Academy of Sciences, ul. Vavilova 38, 119333 Moscow, Russia; e-mail: sls@fo.gpi.ru

Received 13 November 2018

Kvantovaya Elektronika 48 (12) 1083–1083 (2018)

Translated by O.M. Tsarev
