

# Conference on Physics of Ultracold Atoms in Russia – a new step towards deepening international cooperation

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At the end of December 2021, there was held online the annual, fifteenth in a row, All-Russian Conference on Physics of Ultracold Atoms, in which scientists from other countries took part. Over the past years, this conference has changed dramatically: from a one-day workshop of participants in the integration projects of the Siberian Branch of the Russian Academy of Sciences, where the results of the year were summed up, into a full-scale All-Russian conference with a wide geographic coverage of participants from Vladivostok to Voronezh. Foreign scientists also took an active part in the work of the conference, but until recently they were Russian-speaking researchers, and so Russian remained the working language of the conference. In 2021, an important step was taken towards its transition to a full-fledged international format. Russian and English became the working languages, and in order to increase the level and significance of the conference, as well as to deepen international cooperation in this field of physics, a number of foreign scientists were invited.

The 2021 conference was a success. More than 50 reports were made (see the web page of the conference <https://ultracoldatoms2021.laser.nsc.ru>), which convincingly emphasised the importance of using ultracold atoms in such areas as optical frequency standards, quantum sensors, quantum computing, etc. The conference showed that research in physics of ultracold atoms in Russia is at the world level and has a significant potential for further development.

In continuation of previous special issues of Quantum Electronics on this subject [1–5], this issue contains papers selected by the organising committee of the conference and the editorial board of the journal based on the materials of a number of reports. The work took place in several thematic sections: optical and microwave frequency standards, laser cooling, quantum sensors, quantum informatics, quantum Fermi and Bose gases, matter waves and nonlinear laser spec-

troscopy. Part of the work in a number of these areas is presented in this special issue.

## References

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