

Preface



The 19th International Symposium on Very High Energy Cosmic Ray Interactions (ISVHECRI 2016), held at the P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow (LPI RAS) from 22 to 28 August 2016, attracted more than 120 participants. The Symposium was carried out under the auspices of the International Union of Pure and Applied Physics (IUPAP) with financial support from the Federal Agency for Scientific Organizations and the Russian Foundation for Basic Research.

ISVHECRI is a biennial conference series launched in 1980 at Nakhodka (Russia) dedicated to very high energy cosmic ray research. A specific aspect of the ISVHECRI series is to focus on high energy hadron collisions of cosmic ray particles and related topics including all directions of very, and extremely, high energy cosmic ray studies with air showers. These Symposia highlight the accelerator studies of hadronic interactions at very high energies and the consequent interpretation of the cosmic ray data as well as an understanding of hadronic interactions from cosmic ray data.

Since 2002 this series has brought together cosmic ray physicists and scientists involved with high energy accelerators and colliding beam facilities, including the LHC and RHIC. The previous ISVHECRI meeting at CERN in 2014 was an ideal opportunity for cosmic-ray and particle physicists engaged in accelerator experiments to directly discuss problems of mutual interest following the successful start-up of the Large Hadron Collider.

Topics covered in this Symposium:

- Recent accelerator data and results
- Cosmic Rays and Gamma Rays up to 10^{18} eV
- Extensive air showers
- Hadronic interaction models and cross sections
- Exotic phenomena
- Neutrinos and Inclusive Muons

The Symposium consisted of plenary sessions, including invited review talks, as well as highlight talks and posters selected from the submitted abstracts. A Public Lecture highlighted the history and origins of the Symposium.

The participants had the opportunity to visit the Joint Institute for Nuclear Research with a one-day excursion to Dubna, Moscow Region and learned about the on-going studies at the famous accelerator and nuclear centre as well as to get an

idea of new projects under construction such as NICA. Another highlight of the week was the Symposium Dinner held on an evening river cruise on the Moscow River.

The complete Timetable and Speakers' slides can be found on the Symposium website <http://isvhecricri-2016.lebedev.ru/en/main>.

We wish to thank the International Advisory Committee, the Scientific Program Committee, the Local Organizing Committee and all the speakers who made this a very successful meeting. Thanks are also due to the administration of the LPI RAS for their support for the Symposium.

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