

The Third All-Russia Conference on Global Electric Circuit

C o n f e r e n c e R e s o l u t i o n

Third All-Russia Conference on Global Electric Circuit was held on September 25 – 29, 2017 in Borok, a scientific settlement in Yaroslavl region (Russia). Oral reports and poster papers had been presented by more than 30 participants from 14 leading scientific centers of Russia, including Schmidt Institute of Physics of the Earth (Moscow), Borok Geophysical Observatory (Borok), Institute of Geosphere Dynamics (Moscow), Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation (Troitsk, Moscow), Space Research Institute (Moscow), Fedorov Institute of Applied Geophysics (Moscow), Ioffe Institute (Saint Petersburg), Institute of Applied Physics (Nizhny Novgorod), Institute of Computational Modeling (Krasnoyarsk), Skobeltsyn Institute of Nuclear Physics of Lomonosov Moscow State University (Moscow), Vladimir State University (Vladimir), Tomsk State University (Tomsk), Southern Federal University (Rostov-on-Don) and others.

The Third All-Russia Conference on Global Electric Circuit was organized by Borok Geophysical Observatory IPE RAS. The conference was held with financial support of Russian Foundation for Basic Research. Conference subjects included problems of global electric circuit and Earth electrical environment formation; mathematical modeling of global electric circuit as geophysical object; electricity of lower atmosphere in global electric circuit; global electric circuit dynamics: thunderstorm electricity, lightning, ionosphere and magnetosphere activity; electricity of middle and upper atmosphere, high-energy processes in the atmosphere; global electric circuit, meteorology and climate, ecological aspects of global electric circuit; global electric circuit monitoring: field observations and databases.

The conference was characterized by a high scientific level of reports. The topical fundamental problems of atmospheric electricity, geoelectrodynamics, mathematical modeling of processes in global electric circuit, interpretation of natural atmospheric electric observations and geoinformatics were discussed. The conference became a noticeable event in life of geophysical community.

Conferees consider expedient to

- recognize a high level of conferencing and to express gratitude to organizers;
- note that the Third All-Russia Conference on Global Electric Circuit promoted open exchange of interdisciplinary geophysical information, discussion of mathematical, instrumental and methodical base of modern geophysics;
- emphasize some need for exploitation of global databases of satellite and ground-based geophysical and atmospheric physical observations, improvement of systems to data collection, storage and analysis, use of modern geoinformation technologies;
- develop network of complex continuous atmospheric electric observations and also numerical modeling of processes in a global electric circuit;
- note the results of the satellite data analysis presented by researchers of Skobeltsyn Institute of Nuclear Physics offering new prospects in study of global electric circuit;
- note progress of Borok Geophysical Observatory in carrying out atmospheric electric observations by balloon-borne instruments and numerical simulation of processes in an atmospheric boundary layer;
- consider worthwhile to coordinate activities of various research groups in joint atmospheric electric observations, including satellite and ground-based observations, as well as in analysis and interpretation of the observational data;
- grant access via the conference website to the presentations of the conference reports and to corresponding publications with the consent of their authors;
- publish this resolution on the conference website.