The School is funded by Russian Science Foundation (RSF) within the framework of RSF Project 15-17-30020 "Application of systems analysis for estimation of seismic hazard in the regions of Russia".

The School is open for MSc and PhD students up to 35 years, as well as young scientists holding a PhD degree.

Lectures at the School will be given by leading scientists representing Geophysical Center, Russian Academy of Sciences, Moscow, Russia (GC RAS), Schmidt Institute of Physics of the Earth, Russian Academy of Sciences, Moscow, Russia (IPE RAS), Institute of Earth Physics of Paris, Paris, France (IPGP), Institute of Earthquake Prediction Theory and Mathematical Geophysics, Russian Academy of Sciences, Moscow, Russia (IEPT RAS), University of Trieste, Trieste, Italy (UNITS) and other.

Program Committee Co-chairs:

Alexander Soloviev, corr. member RAS (IEPT RAS & GC RAS)

Sergey Tikhotsky, corr. member RAS (IPE RAS)

Organizing Committee:

Boris Dzeboev (GC RAS)

Vitaly Pogorelov (IPE RAS)

Vera Timofeeva (IPE RAS & CSA innovative group)

Feel free to contact us:

school2017@gcras.ru

RSF | Russian Science Foundation

CSA innovative group

School for Young Scientists "Methods of Comprehensive Assessment of Seismic Hazard"

Moscow, 3-7 July 2017

Venue:
Schmidt Institute of Physics of the Earth, Russian Academy of Sciences

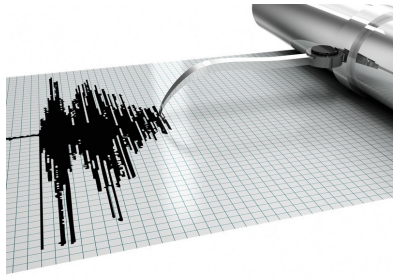
http://school2017.gcras.ru

School for Young Scientists “Methods of Comprehensive Assessment of Seismic Hazard”

Lectures will focus on the following specific topics:

- application of system analysis methods to the problem of seismic hazard assessment;
- determination of areas prone to large earthquakes by means of different methods;
- application of the Unified Scaling Law for Earthquakes (USLE) for seismic hazard and risk assessment;
- databases based on the results the seismic hazard assessment;
- modeling of blocks-and-faults system dynamics and seismicity;
- aftershock activity express-assessment;
- neo-deterministic approach to dynamical seismic hazard assessment;
- statistical seismology methods.

Along with the lectures some time will be devoted to direct scientific conversations between School participants and lecturers. This will offer an opportunity for participants to penetrate deeply application of seismic hazard assessment methods and to discuss their own studies and research projects.



Reducing the impact of natural and man-caused catastrophic events is a complex scientific and technical problem, which is of great social and economic importance. Its urgency is continuously increasing due to rising population density, anthropogenic impact on natural environment, development of environmentally hazardous industries (nuclear, chemical, military industry, etc.), and expansion of mining production, oil and gas.

According to UN data seismic catastrophes constitute 51 % from the total number of natural cataclysms. Earthquakes are extreme evens occurred in a complex system – the Earth lithosphere. They are controlled by dynamics of the lithospheric plates, accumulation of tectonic stress and its release. The largest earthquakes occur rarely but lead to huge economic, financial, and human losses. Modern methods of seismic hazard assessment though being rather developed are not always able to characterize in detail a particular region at real threat as a result of strong earthquake. At the same time the estimates obtained by the classical methods of seismic zoning were exceeded in each of the 88 earthquakes with a magnitude greater than or equal to 7.5 that struck around the world from 1990 to 2009 including the 12 deadliest earthquakes that shook between 2000 and 2011. Thus enhancement of the existing methods and development of new ones for adequately assessing and predicting seismic hazard and risks are fundamental scientific problems addressed to the problem of reducing losses associated with natural hazards. Taking into account multiple-factor

processes causing earthquakes the decision of these problems can be achieved only on the basis of applying the complex of methods and the further system analysis of the results obtained.

The subject area of the School will be devoted to the new methods developed recently for seismic hazard assessment and integration on the basis of the system analysis of results obtained by these methods. Examples of seismic hazard assessment for specific regions will be also considered.