

International Conference  
50th Anniversary of the International Geophysical Year  
and Electronic Geophysical Year

## Programme of the Conference

Monday, 17 September 2007

9.30–11.20 Conference opening

*Chair:* Alexei Gvishiani, Director, GC RAS

**Opening address:** [10.00–10.10]

*Alexei Gvishiani*, Director, GC RAS

**Welcoming addresses:** [10.10–11.00]

*Yury Leonov*, Acad., Earth Sciences Dept. RAS

*Alexander Gliko*, Acad., IPE RAS

*Eric Kihn*, Dr., NGDC, USA

*Alik Ismail-Zadeh*, Dr., IUGG Secretary General

*Robert Chen*, Dr., CODATA Secretary General

*Jean Bonnin*, Dr., EDNES, Strasbourg, France

*Michael Zgurovsky*, Acad. NAN, NTUU KPI, Ukraine

Welcoming address of the Mayor of Suzdal

**Keynote address—RFBR activity in supporting research work in informatics** [11.00–11.20]

*Yury Smetanin*, Dr., Russian Foundation for Basic Research

11.20–11.40 Coffee break

11.40–14.20 Plenary session 17.1: IGY scientific results: 50 years later

*Co-chairs:* Alexander Gliko, IPE PAS, Russia; Jean Bonnin, EDNES, Strasbourg, France

**The Electronic Geophysical Year and the World Data Center System** [11.40–12.10]

*Eric Kihn*, *David Clark*, NGDC, USA

**Aspects of the Soviet IGY** [12.10–12.40]

*R. Bulkeley*, Exeter College, Oxford, UK

**From observations to non-linear models in geoinformatics** [12.40–13.00]

*A. Gvishiani*, GC RAS, Russia

**Arctic exploration by remote sensing data** [13.00–13.20]

*V. Savinykh*, cosmonaut, MIIGAIK, Russia

**Long-term archiving of interdisciplinary data at Columbia University** [13.20–13.40]

*R. Chen*, CODATA; CIESIN Columbia University, USA

**Modern state and perspectives of fresh groundwater use for potable water supply** [13.40–14.00]

*I. Zektser*, Institute of Water Problems RAS, Russia

**History of the Geophysical Center RAS** [14.00–14.20]

*A. Kudashin*, GC RAS, Russia

15.00–17.10 Plenary session 17.2: Electronic Geophysical Year, International Polar Year, International Heliophysical Year

*Co-chairs:* Sergei Belov, GC RAS, Russia; Robert Chen, CODATA, USA

**From Geo- to Heliophysical Year: Results of space project CORONAS-F** [15.00–15.30]

*V. Kuznetsov*, IZMIRAN, Russia

**The Space Weather Reanalysis** [15.30–15.50]

*E. A. Kihn*, *A. J. Ridley*, NGDC, Boulder, USA;

*M. Zhizhin*, GC RAS, Moscow, Russia

**New information of the earth from dedicated satellite gravity missions** [15.50–16.10]

*M. Diament*, IGP, Paris, France

**Space Physics Interactive Data Resource – SPIDR** [16.10–16.30]

*M. Zhizhin*, GC RAS, Moscow, Russia; *E. Kihn*,

*R. Redmon*, NGDC, Boulder, USA; *D. Medvedev*, and

*D. Mishin*, GC RAS, Moscow, Russia

**Forecast/prediction of extreme events: Fundamentals and prerequisites of verification** [16.30 - 16.50]

*V. Kossobokov*, *A. A. Soloviev*, MITPAN, Moscow, Russia

**Information-measuring complex of mid-latitude Borok Geophysical Observatory** [16.50–17.10]

*S. Anisimov*, *E. Dmitriev*, Borok Geophysical Observatory, IPE RAS, Russia

17.10–17.30 Coffee break

17.30–19.00 Plenary session 17.2: Electronic Geophysical Year, International Polar Year, International Heliophysical Year (continued)

*Co-chairs:* Eric Kihn, NGDC, USA; Vitaly Nechitailenko, GC RAS, Russia

**Participation of WDCs of Roshydromet in the IPY program 2007/2008** [17.30–17.45]

*M. Shaimardanov*, *A. Sterin*, *A. Kuznetsov*, BNIIGMI-WDC, Obninsk, Russia

**Research of the earth's interior after IGY: Projects “Geotraverse” and “Intermargins”** [17.45–18.00]

*A. Rodnikov*, *N. Sergeeva*, *L. Zabarinskaya*, GC RAS, Russia

**WDC-B on Solid Earth Physics; Plans for participating in eGY** [18.00–18.15]

*N. Sergeeva*, *E. Kharin*, GC RAS, Russia

**WDC Kiev Branch and eGY** [18.15–18.30]

*M. Zgurovsky, M. Didkovskaya, N. Pankratova*, National Technical University, Ukraine

**WDC of GC RAS participation in IPY** [18.30–18.45]

*E. Kharin, N. Sergeeva, L. Zabarinskaya, T. Krylova*, GC RAS, Russia

**Solar geoeffective phenomena: Impact on near-earth space and possibility of prediction** [18.45–19.00]

*V. Ishkov*, IZMIRAN, Russia

Tuesday, 18 September 2007

8.30–11.30 Parallel Session 18.1: Contemporary problems of geoinformatics in the changing world

*Co-chairs*: Michael Zgurovsky, NTUU KPI, Kiev, Ukraine; Vladimir Kuznetsov, IZMIRAN, Russia

**Electronic Earth - network of search, integration and geological data analysis** [8.30–8.50]

*Yu. Arskiy, A. Shogin*, VINITI RAS; *A. Veselovsky*, IZMIRAN RAS; *V. Gitis*, IPPI RAS, Moscow

**The use of analytical approximations to solve problems of geophysics, geodesy and geoinformatics** [8.50–9.20]

*V. Strakhov, I. Stepanova*, IPE RAS; *A. Strakhov, Ye. Zhalkovskiy*, GC RAS, Moscow

**Geological data transferring network in the Russian Far East** [9.20–9.40]

*V. Naumova*, Far Eastern Institute of Geology RAS; *A. Sorokin*, Far Eastern Institute of Geology and Nature RAS, Russia

**Application of dynamic calibration's method of IMS stations from the Central Asian region** [9.40–10.00]

*O. Kedrov, G. Sobolev*, IPE RAS; *E. Kedrov, N. Sergeeva, L. Zabarinskaya*, GC RAS, Moscow

**Distributed networking analytical GIS** [10.00–10.20]

*V. Gitis, A. Vainshtok*, IPPI RAS; *A. Shogin*, VINITI RAS, Moscow

**Representation of geological-geophysical data in a unified integrated GIS environment** [10.20–10.40]

*A. Beriozko, A. Soloviev, R. Krasnoperov*, GC RAS, Russia

**Information Portal “Geophysics” - State of the Art** [10.40–11.00]

*S. Belov, E. Kedrov*, GC RAS, Russia

**Charts of geomagnetic field of the earth and data bank** [11.00–11.15]

*Ye. Zhalkovskiy, V. Pyatygin*, GC RAS, Russia

**Tidal forces contribution to seismic process** [11.15 - 11.30]

*B. Levin*, Institute of Sea Geology and Geophysics, Far Eastern Dept. RAS, Russia

11.30–12.00 Coffee break

8.30–11.30 Parallel Session 18.2: Russian-French research on geophysics, volcanology and seismic danger

*Co-chairs*: Michel Diament, IPGP, France; Nina Frolova, Seismological Center RAS, Russia

**Ground-based research and monitoring of volcanoes and earthquakes** [8.30–9.00]

*J. Zlotnicki*, CNRS-OPGC, Clermont-Ferrand, France; *J. L. Le Mouél*, Laboratoire de Géomagnétisme, I.P.G.P., France; *A. Gvishiani, M. Rodkin*, GC RAS, Moscow, Russia; *R. P. Singh*, Indian Institute of Technology, Kanpur, India; *Sh. Bogoutdinov, S. Agayan*, GC RAS, Moscow, Russia; *G. Vargemesis*, Aristotèles Laboratory, University, Thessaloniki, Greece; *A. Senthilkumar*, CNRS-OPGC, Clermont-Ferrand, France

**Telematic systems of volcanoes and earthquakes monitoring** [9.00–9.30]

*A. Gvishiani, S. Agayan, Sh. Bogoutdinov, E. Graeva*, GC RAS, Russia

**European project on mitigation of damage of earthquakes** [9.30–10.00]

*J. Bonnin*, EDNES, Strasbourg, France

**Earthquake impact data bases: Availability and uncertainties** [10.00–10.30]

*N. Frolova*, Seismological Center RAS, Russia; *V. Larionov, J. Bonnin*, EDNES, Strasbourg, France; *A. Gvishiani*, GC RAS, Russia

**Monitoring of subduction zones dynamics by modern satellite systems** [10.30–11.00]

*M. Diament, V. Mikhailov (IPE), I. Panet, O. de Viron*, IPGP, France; *N. Tsybin*, State research Institute of Aviation Systems, Moscow, Russia

**The Borok INTERMAGNET magnetic observatory** [11.00–11.30]

*A. Chulliat*, IPGP, France; *S. Anisimov*, IPE RAS, Russia

11.30–12.00 Coffee break

12.00–13.30 Plenary Session 18.3: Natural disasters and risks in the modern world

*Co-chairs*: Guennady Sobolev, IPE RAS, Russia; Avi Shapira, International seismological centre, Thatcham, UK

**Extreme seismic events from basic science to preventive disaster management** [12.00–12.30]

*A. Ismail-Zadeh*, International Institute of Earthquake Prediction Theory RAS; Geophysical Institute, Karlsruhe University, Germany

**Seismic risk according to geological and seismic data** [12.30–13.00]

*E. Rogozhin*, IPE RAS, Russia

**Use of modern seismological data for detection of earthquake precursors** [13.00–13.30]

*G. Sobolev, A. Lubushin*, IPE RAS, Russia

15.00–18.30 Plenary Session 18.3: Natural disasters and risks in the modern world (continued)

*Co-chairs*: A. Chulliat, IPGP, France; Eugeny Rogozhin, IPE RAS, Russia

**The International seismological centre** [15.00–15.30]

*A. Shapira*, International seismological centre, Thatcham, UK

- Global modeling of stable development of the planet: Favourable scenarios and dangers** [15.30–16.00]  
*M. Zgurovsky*, NTUU KPI, Ukraine
- Global endogenous activity and biosocial processes** [16.00–16.20]  
*S. Belov*, GC RAS, Russia
- The basic results and prospects of MEE algorithm for the medium-term forecast of earthquakes** [16.20–16.40]  
*A. Zavyalov*, IPE RAS, Russia
- Global tectogenesis. (General forms of revelation)** [16.40–17.00]  
*V. Morozov*, GC RAS, Russia
- 17.00–17.30 Coffee break
- Data on losses from natural disasters. Tendencies of change in the recent world** [17.30–17.50]  
*M. Rodkin*, *V. Pisarenko*, GC RAS, Russia
- Digital records of ground oscillations during Olutorsky earthquake (Koryakia, 20.04.2006, Mw=7.6) and its aftershocks** [17.50–18.10]  
*A. Gusev*, *O. Chubarova*, Institute of Volcanology and Seismology, Far Eastern Dept. RAS, Petropavlovsk-Kamchatsky; *V. Chebrov*, *I. Abubakirov*, Kamchatka Filial of Geophysical Service RAS, Russia
- Role of north-western deep faults in the seismicity of the Koryak-Kamchatka region** [18.10–18.30]  
*G. Yarotsky*, *V. Shirokov*, Institute of Volcanology and Seismology, Far Eastern Dept. RAS, Russia
- 18.30–20.00 Plenary Session 18.4: Poster and computer presentations
- Co-chairs*: *Sergey Lebedev*, GC RAS, Russia; *Jacques Zlotnicki*, IPGP, France
- Risks and benefits of globalization for countries with transition economy**  
*A. Zgurovsky*, Kiev National University, Ukraine
- Stability of geological medium and geocological security of nuclear fuel cycle objects**  
*V. Morozov*, *S. Belov*, *I. Kolesnikov*, *V. Tatarinov*, GC RAS, Russia
- Research of Kamchatka volcanoes by remote-sensing methods in 2006**  
*S. Senyukov*, *I. Nuzhdina*, *S. Droznina*, *V. Garbuzova*, *T. Kozhevnikova*, *S. Toloknova*, *O. Sobolevskaya*, Kamchatka Filial of Geophysical Service RAS, Petropavlovsk-Kamchatsky, Russia
- Tectonic position of the Khailinsky and Olutorsky earthquakes**  
*G. Yarotsky*, Institute of Volcanology and Seismology, Far Eastern Dept. RAS, Russia
- Research of meteorological, hydrological and hydrodynamic regimes of the Caspian Sea using satellite altimetry data**  
*S. Lebedev*, GC RAS, Russia; *A. Kostianoy*, Shirshov Institute of Oceanology RAS, Russia
- Database “World Ocean - INM RAS” of the Institute of Numerical Mathematics RAS**  
*S. Lebedev*, GC RAS, Russia; *V. Agoshkov*, Institute of Numerical Mathematics INM RAS, Russia
- Construction and investigation of models of earth crust deformations based on spatial geodetic data for study of geodynamic processes**  
*S. Kriukov*, *V. Tatarinov*, GC RAS, Russia
- Distribution and degassing of volatile elements (S, Cl, F) in magmas across the Kamchatka curve**  
*T. Churikova*, Institute of Volcanology and Seismology, Far Eastern Dept. RAS, Russia
- Spatial-time system of real time**  
*V. Grachev*, *E. Nikolaev*, Federal State Unitary Enterprise OKB Moscow Energy Institute; *D. Luppov*, LLC “VITA-Service”, Moscow, Russia
- System of making decisions on operative air monitoring in industrial cities**  
*A. Gasanov*, International scientific-educational center of information technologies and systems, Kiev, Ukraine; *Yu. Zaichenko*, Institute of Applied System Analysis, Kiev, Ukraine
- DMA in nonlinear approach to geophysical data studies**  
*A. Gvishiani*, *S. Agayan*, GC RAS, Russia; *J. Zlotnicki*, *M. Diament*, IPGP, France
- Complex model of tectonic evolution of structural blocks of earth crust and radioactive waste disposals locations**  
*A. Gvishiani*, *V. Tatarinov*, *V. Morozov*, *S. Belov*, GC RAS, Russia
- Complex electromagnetic monitoring of Corinth Gulf seismic area (Greece). Fuzzy logic algorithms time series pattern recognition**  
*J. Zlotnicki*, *J-L. Le Mouel*, *G. Vargemezis*, IPGP, France; *A. Gvishiani*, *M. Rodkin*, *S. Agayan*, *Sh. Bogoutdinov*, GC RAS, Russia
- Seasonal variations of trace gases, ozone meteorological parameters and their connection with aerosol formation**  
*Yu. Lyubovtseva*, GC RAS, Russia; *L. Sogacheva*, *M. Kulmala*, Helsinki University, Finland
- Linear model of formation of aerosol nucleation mode in the atmosphere**  
*A. Lushnikov*, *M. Kulmala*, Helsinki University, Finland; *Yu. Lyubovtseva*, GC RAS, Russia
- Dissemination and exploitation of Grids in earth science**  
*A. Polyakov*, *M. Zhizhin*, *D. Mishin*, *A. Poida*, *D. Medvedev*, GC RAS, Russia
- Non-equilibrium dynamic system as the basic scheme of processing of oil generation, formation of ore deposits and earthquakes generation**  
*M. Rodkin*, *L. Labuntsova*, GC RAS, Russia

**Interactive training course of the EU 7th Framework Programme**

*A. Beriozko, E. Kedrov, GC RAS, Russia*

**Librarian-information support of scientific research**

*I. Vitvitskaya, Library of Natural Sciences RAS, Russia*

**The lithospheric structure of Fennoscandia according to seismic data**

*I. Aleshin, G. Kosarev, O. Riznichenko, The Sadankule geophysical observatory, Department of the Oulu University, Finland; E. Kozlovskaya, IPE RAS, Russia; I. Sanina, IGD RAS, Russia*

**Modern geophysical systems and autonomous bottom stations for long-term seismological monitoring**

*D. Levchenko, Institute of Oceanology RAS, Russia; A. Paramonov, OKB OT RAS, Russia*

**Study of ocean response to climatic changes in XX-XXII centuries, based on the joint model of general atmospheric and ocean circulation**

*N. Diansky, E. Volodin, INM RAS, Russia*

Wednesday, 19 September 2007

8.30–10.40 Plenary Session 19.1: Global changes and climate

*Co-chairs: Igor Mokhov, IPA RAS, Russia; Rip Bulkeley, Exeter College, Oxford, UK*

**Possible regional consequences of global climatic changes [8.30–9.00]**

*I. Mokhov, IPA RAS, Russia*

**Ancient biosphere: Development, trend and events [9.00–9.30]**

*M. Fedonkin, Paleontology Institute RAS, Russia*

**Mathematical modeling of possible catastrophic changes of climate [9.30–10.00]**

*E. Volodin, V. Galin, V. Dymnikov, N. Diansky, V. Lykossov, Institute of Numerical Mathematics INM RAS, Russia*

**Use of satellite altimetry for research of coastal regions of seas: Project ALTICORE [10.00–10.20]**

*S. Lebedev, A. Sirota, D. Medvedev, S. Khlebnikova, GC RAS, Russia; S. Vignudelli, Institute of Biophysics of the National Council of Scientific Research, Italy; H. Snaith, P. Cipollini, F. Venuti, National Oceanographic Center, UK; F. Lyard, J. F. Cretaux, F. Birol, J. Bouffard, Laboratory of Geophysics and Satellite Oceanographic Research, France; L. Roblou, Noveltis, France; A. Kostianoy, A. Ginzburg, N. Sheremet, E. Kuzmina, Shirshov Institute of Oceanology RAS, Russia; R. Mamedov, Kh. Ismatova, A. Aliev, T. Nabiev, Institute of Geography NAS of Azerbaijan, Center of Problems of the Caspian Sea, Azerbaijan*

**Long-term variations of solar activity stimulating rapid climatic changes [10.20–10.40]**

*O. Raspopov, IZMIRAN, St. Petersburg Filial; V. Dergachev, Physical-Technical Institute, St. Petersburg, Russia*

10.40–11.20 Coffee break

11.20–12.00 Discussion and Closing session

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