International Conference "Data Intensive System Analysis for Geohazard Studies"

18–21 July 2016, Sochi region, Mountain cluster, Russia

Great Debate

"What scientific and technological data and their Systems Analysis will be in the 21st century?"
20 July, 2016
Duration: 1h 10m

Audience

1. Conference participants;
2. Mass media (local, federal, national);
3. Delegates from Sochi regional scientific and educational boards and institutions;
4. Students and postgraduates (off- and online);
5. Representatives of local and regional authorities;
6. Online broadcasting to wide relevant audience through IIASA, RAS, GC RAS and other relevant websites.

Panelists

1. Prof. **Pavel Kabat** (Austria/the Netherlands) – Director General, CEO and Chief Scientist of the International Institute for Applied Systems Analysis (IIASA);
2. Prof. **Alexander Gliko** (Russia) – Full member of RAS, Chief of the Earth Sciences Division of the Russian Academy of Sciences;
3. Dr. **Heide Hackmann** (South Africa/Germany) – Executive Director of the International Council for Science (ICSU);
4. Prof. **Mioara Mandea** (France/Romania) – Programme Manager for Solid Earth at the Earth Observation / Directorate of Innovation, Applications and Science of CNES (Centre National d'Études Spatiales), Secretary General of the International Association of Geomagnetism and Aeronomy (IAGA);
5. Prof. **Fred S. Roberts** (USA) – Director of Command, Control and Interoperability Center for Advanced Data Analysis (CCICADA) Department of Homeland Security Center of Excellence;
6. Prof. **Geoffrey Boulton** (United Kingdom) – President of the International Council for Science: Committee on Data for Science and Technology (CODATA), Regius Professor of Geology Emeritus at the University of Edinburgh.

Moderator: Prof. **Alexei Gvishiani** – Full member of RAS, Director of the Geophysical Center of RAS (GC RAS), Vice-chair of the Council of the International Institute for Applied Systems Analysis (IIASA).

Program and timing

- Duration of the Great Debate as a whole is approximately 70 min;
- Moderated discussion with the panelists is ~50 min;
- Questions from the audience to the panelists is ~20 min;
- Video of the meeting will be available online at Bulletin of Earth Sciences Division of RAS web-site (http://onznews.wdcb.ru/).

Tentative **topics** for the panel discussion:

1. What are the estimates of the present-day balance between data growth and adequate System Analysis methods for their processing thus making them useful?
   Possible replies from A. Gliko, F. Roberts and P. Kabat
2. What will be major spheres of the Systems Analysis development in the 21st century?
   Possible replies from P. Kabat, F. Roberts, H. Hackmann and M. Mandea
3. What is the prospect of general, homogenous mathematical basis creation for different applied problems of the Systems Analysis?
   Possible replies from P. Kabat, F. Roberts and J. Boulton
4. How will the interdisciplinary international scientific collaboration and open scientific and technological data policy be implemented in the 21st century?
   Possible replies from H. Hackmann, G. Boulton and A. Gliko
5. What lies behind successful geohazard forecasts and predictions made upon big observation data? Is there a way to say, whether they were truly good or just lucky?
   Possible replies from F. Roberts, A. Gliko and M. Mandea
6. What will be Data Science in the 21st century and how should systems of geo-observations adapt to big data phenomenon?
   Possible replies from M. Mandea, A. Gliko and G. Boulton

Extra questions (if time is available):

- Is it feasible to ensure adequate data interoperability over the whole range of geohazard related disciplines?
- What will be the main issues in preservation and usage of analog and digital data in the 21st century?
- Big data even more demand to distinguish the predictable from the unpredictable. How to handle this?