

NEWSLETTER

Commission on Climatology

N° 12

December 2011

Dear Friends and Colleagues,

The year 2011 is coming to a close. The year saw climatological issues at the forefront of advances in research. Climatological research pursued across the globe showed us that the climate and changes therein are particularly important in global social and economic development. The recent UN climate conference in Durban, South Africa, confirmed the importance of climatological issues and underscored the difficulties associated with the creation of a new climate pact.

Hence, our Commission on Climatology is facing quite a challenge. One part of our mission is to promote research in the area of climate change. In order to do this, the Commission will hold six climatology sessions during the Geography Congress, which will be held on August 26-30, 2012 in Cologne, Germany. The deadline for registering research papers and posters has been extended to January 8, 2012. I encourage you to register for the Congress and the climatology workshops.

The year 2012 is upon us. I would like to take this opportunity to wish all climatologists all the best for the New Year and that all of your research efforts will be productive. Hope to see you at the Commission on Climatology sessions at the Geography Congress in Cologne.

> Best Regards, Zbigniew Ustrnul – Chair of the CoC

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1. Membership

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Corresponding Members

IGU VGI !!! The data has still being collected and prepared !!!

2. IGU Congress, Cologne, Germany – 2012



https://igc2012.org/frontend/index.php

The 32nd International Geographical Congress in Cologne focuses scientific attention on the core themes of humanity. Researchers from around the world are expected in Cologne in 2012. Geographers bring the wide-ranging perspectives and methodology of their subject to bear on four major thematic complexes and contribute to the solution of urgent scientific and socio-political issues – bringing research down to Earth:

- Global Change and Globalisation
- Society and Environment
- Risks and Conflicts
- Urbanisation and Demographic Change



6 sessions (13 conference time slots altogether) covering broad range of topics are arranged for Commission on Climatology during the Congress:

Session: Climate change and variability in different spatial and temporal scales Chair(s): Nigel Tapper

Abstract:

IGU VGI Climate change and variability has been recently the main research problem in climatology and environmental studies. Both, climate oscillations themselves and their impact on human activities and the environment have been analyzed. The session focuses on descriptions and understanding of past and current climate with the regard to different spatial scales. The objectives are to identify climate change indicators from the global perspective towards the local level encompassing time scales ranging from short-term climate variations of a season or less to longer term climate changes occurring over decades to centuries. The special focus will be done at analyses based on proxy data. Presentations discussing direct causes of the climate change and variability have will be highly recommended. Other issues including climatic scenarios are extremely welcome.

Timeslots: 4 (4x80 min; app 20 presentations)

Session: Weather and Climate Extremes Chair(s): Zbigniew Ustrnul

Abstract:

A heated debate about weather and climate extremes has been going on in recent years all over the world. Hundreds or even thousands of publications and media reports on extreme weather phenomena have been produced, but a shortage of publications based on long-term homogenous data series can be felt. There are many questions which still remain unanswered. The session is focused on the occurrence, trends, and forecasting of extreme events with the special regard to methodological problems and the issue of the direct causes of their appearance. It will also discuss the question how extreme events, such as droughts, floods, heat waves, and hurricanes, are related to climate variability and change. The session is open for all participants who intend to present: (a) results of local, regional and global research, (b) how to define and describe climatic extremes, (c) how to analyze them in time and space and (d) what are the direct causes of their occurrence. Other issues including scenarios of extremes are also welcome.

Timeslots: 2 (2x80 min; app 10 presentations)

Session: Applied Climatology in 21 Century Chair(s): Ana Monteiro

Abstract:

Recent developments in research techniques have produced a wide range of powerful methods for capturing, modeling, and displaying of climate data. Since researchers and policymakers are often interested not in the meteorological elements themselves but in the information that can be extracted from them in the form of various indices, which are useful in the environmental and social sciences lots of them were also successfully applied in different areas of human life. The session focuses on the relationship between climate and a wide range of human activities relating to health and comfort, agriculture, building design, transport systems as well as tourism and social. The aim is to present the characteristics and consequences of the changing global climate and considers the future for both natural and human environments. The session is addressed to climatologists and spatial management specialists interested in the issue and using applied climatology methods.

Timeslots: 2 (2x80; app 10 presentations)

Session: Potential Impacts of Climate Variability and Change on Agriculture Chair(s) Julie A. Winkler

Abstract:

IGU VGI The potential impacts of climate variability and change on agriculture are complex. Furthermore, the analytical frameworks and models needed to understand and simulate the linkages between the physical and socio-economic components of an agricultural system and to evaluate adaptation options and management strategies are incomplete. This session will include presentations by physical scientists, social scientists, and economists, and will focus on 1) historical climate variability and impacts on agriculture, 2) novel approaches and models for integrated assessments for agricultural commodities at a range of spatial scales, and 3) the evaluation of adaptation and mitigation options.

Timeslots: 1 (1x80; app 5 presentations)

Session: Urban climates Chair(s): Arieh Bitan & Hadas Saaroni

Abstract:

The session is devoted to research into the atmospheric processes operating in built areas as well as weather, climate and surface hydrology experienced. Problems of urban bioclimates, topoclimatology of cities, urban impacts on temperature, surface moisture, dew, evaporation, humidity, fog, cloud and precipitation, interactions between urban climate and the emission, dispersion, transport, transformation and removal of air pollutants will be presented. The session also aims to discuss developments in research (including remote sensing of cities and urban climate) and the application of climatic knowledge to the design of better cities.

Timeslots: 2 (2x80; app 10 presentations)

Session: Joint session CoC-IGU MRP: "Climate change in the areas with Mediterranean climate: characteristics, mitigation and adaptation" Chair(s): Annick Douguedroit

Abstract:

The areas with a Mediterranean climate, particularly the Mediterranean Basin, are presented as particularly vulnerable to climate change during this century; The the Mediterranean Basin is one "Hotpot". Scientists agree on a mean temperature increase in all seasons, especially important in summer and on a decrease of precipitation, more important in summer than during other seasons, even if they disagree on its magnitude. The intensity and duration of the warm season drought will increase, with possible desertification. Intense rainfall events will increase. Poleward shift of all climate types of the Mediterranean regions, Arid, Semi-arid and Mediterranean is projected for the end of the 21st century. Physical and biological systems in relation with climate drivers will be affected, as hydrology, water resources, human health. Mattorals and steppes are expected to gain ground against wooded land. Associated with population increase more and more concentrated in megacities along the coasts, particularly in the southern areas of the the Mediterranean Basin, climate change will lead to important, even dramatic, social and economical impacts. Water availability for people, agricultural resources, basic for many areas, and many activities will be restricted. Last but not least, which general strategy will be adopted to face those threats: Resistance or resilience? Are expected papers on climatic topics or climate change impacts, at the Mediterranean areas or sub-regional scales; comparisons between areas are also possible etcetera.

Timeslots: 2 (2x80; app 10 presentations)

DEADLINES

IGU VGI

Abstract submission: Reduced registration fee: Registration for longer field trips (two or more days): Registration for one-day field trips: 1 June 2012 Last possible registration date for the Congress: 31 July 2012

8 January 2012 10 April 2012 10 April 2012

One-day tickets may be purchased during the Congress

3. Others

Corresponding Members

We kindly remind and ask every Commission on Climatology Full Member to prepare the potential list of Corresponding Members: people who are interested in cooperating in the frame of CoC, who find the CoC activities important and have the possibility and – what's more important – desire to sustain the international research cooperation and studies on the field of climatology, encourage the exchange of relevant documents and information and organize conferences or meetings. We would try to involve all the people to meet together in Cologne to discuss further perspectives and plans for CoC activities.

CoC website

http://www.klimat.geo.uj.edu.pl/CoC.htm