

# Program of the ENVIROMIS Event

24 June, 2012

**10:00 Registration**

## **International Conference and Early Career Scientists School on Environmental Observations, Modeling and Information Systems ENVIROMIS-2012**

12:00 **Session C1. Ongoing Climate Changes over Northern Eurasia.**  
**Chairs: P. Groisman and E. Gordov.**

### *Lectures*

C1.1. V.M. Plusnin (IG SB RAS)

"The dynamics of glaciation in the south of Eastern Siberia and Mongolia"

**13:00 – 14:30 Lunch**

C1.2. P. Ya. Groisman (UCAR at NOAA National Climatic Data Center) and Richard W. Knight (North Carolina State University)

"Recent Trends in Regional and Global Intense Precipitation Patterns"

### Oral reports

C1.3. Vysotskaya G.S. (ICM SB RAS)

"Dependence of monthly mean temperatures and precipitation in Siberia of the Northern hemisphere temperature changing"

C1.4. Marchenko O.Yu. (MESI SB RAS), Mordvinov V.I. (ISTP SB RAS), Berezhnykh T. V. (MESI SB RAS), Abasov N. V. (MESI SB RAS)

"Long-time changes of the summer atmospheric circulation over East Asia and variation moisture content in the Selenga River basin"

C1.5. Osipova O.P. (IG SB RAS), Osipov E.Yu. (LIN SB RAS)

"Dynamics of glacial climate of Kodar Range during the last 60 years"

**16:15-16:45 Coffee break**

### Short oral reports

C1.6. Vasilenko O.V., Voropay N.N. (IG SB RAS)

"Air temperature distribution in mountain-hollow landscapes of the Tunkinskaya Hollow"

C1.7. Morozova P.A. (IG RAS), Toropov P.A.(MSU)

"Variations climate of the East-European Plain and Caspian Sea level during last 20000 years (on the basis of numerical simulations within the Paleoclimate Modeling Intercomparison Project)"

C1.8. Oznobikhina O.A., Mordvinov V.I., Devyatova E.V. (ISTP SB RAS)

"Long-time changes of the summer stationary atmospheric waves structure over East Asia"

C1.9. Klimeshina T.E., Kozodoev A.V., Rodimova O.B. (IAO SB RAS)

”Radiation fluxes calculation in the 8-12  $\mu\text{m}$  spectral window due to water vapor with accounting for the line wings”

C1.10. Devyatova E.V., Mordvinov V.I. (ISTP SB RAS), Marchenko O.Yu. (MESI SB RAS), Oznobikhina O.A. (ISTP SB RAS)

”Propagation of the summer tropospheric low-frequency fluctuations over Eurasia”

C1.11. Lokhov Sh.K., Voropay N.N. (IG SB RAS)

”The study of the soil temperature dynamics in the field observations with high temporal resolution”

C1.12. Podnebesnykh N.V., Ippolitov I.I. (IMCES SB RAS)

”The relation between the increasing of the temperature and a large-scale atmospheric circulation in spring over Siberia”

C1.13. Miao Chiyuan, Duan Qingyun, Ye Aizhong (Beijing Normal University)

”Evaluation and application of Bayesian multi-model estimation in temperature simulations in the Eurasia region”

C1.14. Rakityanskaya N.M., Im S.T. (IF SB RAS)

”Reduction of water surface in Transbaikal region in connection to climate change”

**19:00 Welcome reception**

**25 June, 2012**

**9:00 Session C1. Ongoing Climate Changes over Northern Eurasia (continued).**

**Chair: TBD**

**Lecture**

C1.15. Andrei Sokolov (MIT Center for the Global Change Science)

”Probabilistic projections of climate system response to anthropogenic forcing, using hierarchy of climate models of different complexity“

**10:00 Session C2. Regional climate modeling. Chairs V. Krupchatnikov and A. Sokolov**

**Lecture**

C2.1. Eliseev A.V., Demchenko P.F., Arzhanov M.M., Mokhov I.I. (IAP RAS)

”Dependence of near-surface permafrost inertia on direction, intensity, and temporal scale of global surface temperature change“

**11:00-11:30 Coffee break**

**Invited reports**

C2.2. A. Gritsun (INM RAS)

”Sensitivity of the surface air temperature to small perturbations of the sea surface temperature on annual time intervals for CCSM3 climate model”

C2.3. K. Klehmet and B. Rockel (Institute of Coastal Research)

”Dynamical Downscaling over Siberia: Assessment of the added value“

C2.4. Kuzin V.I., Lapteva N.A. (ICMMG SB RAS)  
"Modeling of the Climatic River Runoff for the Siberian Region"

### 13:00-14:30 Lunch

#### Oral reports

- C2.5. Ushakov K.V. (IO RAS), Ibraev R.A. (INM RAS, IO RAS)  
"Modeling of the North Atlantic Ocean climate variability: CORE experiment"
- C2.6. Sergeev D.E. (MSU)  
"Parameterization of Mesoscale Sensible Heat and Methane Fluxes in the region of Western Siberia"
- C2.7. Toropov P.A. (MSU)  
"Numerical forecast of strong wind in The Black Sea region: evaluation of accuracy and physical interpretation"
- C2.8. Konstantinov P.I., Varentsov M.I. (MSU)  
"Experimental research of the meteorological parameters inside the urban boundary layer"
- C2.9. Pyanova E.A. (ICMMG SB RAS)  
"Numerical study of the effect of orography on the mesoclimate of Ust-Kamenogorsk"
- C2.10. Polishchuk V.Y. (IMCES SB RAS), Polishchuk Y.M. (USU)  
"Predicting dynamics of thermokarst lakes area"
- C2.11. Batueva E.V., Khartaeva E.Ch. (IPM SB RAS)  
"Statistical models of the tropospheric boundary layer "
- C2.12. Yudin M.S. (ICMMG SB RAS)  
"Propagation of a gravity current in the atmosphere over a steep obstacle"

### 16:30-17:00 Coffee break

- C2.13. Bychkova V.I., Rubinstein K.G. (Hydrometcenter of RF)  
"Short-term numerical forecast of snow storm in Murmansk region"
- C2.14. Tkachuk S.V., Bychkova V.I., Rubinshtein K.G. (Hydrometcenter of RF), Roget E. (University of Girona)  
"Modeling the meteorological regime change of the Aral sea coastal zone induced by the sea reduction"
- C2.15. Smirnova M.M., Rubinstein K.G. (Hydrometcenter of RF)  
"Estimation of data assimilation influence on model WRF-ARW forecasts in some regions"

#### Short oral reports

- C2.16. Dembelov M.G., Bashkuev Yu.B. (IPM SB RAS), Loukhnev A.V., Sankov V.A. (IEC SB RAS)  
"Estimation of troposphere corrections of GPS measurements on points on the Baikal geodynamic ground"
- C2.17. Yusupova D.F., Golubeva E.N. (ICMMG SB RAS)  
"Sensitivity studies of the Arctic Ice-Ocean numerical model"
- C2.18. Yakubaylik T.V., Guldenbalk Yu.B., Kompaniets L.A. (ICM SB RAS)  
"The theoretical justification of the possible internal waves in the Lake Shira"
- C2.19. Mordvin E.Yu., Lagutin A.A., Shmakov I.A. (ASU)  
"Seasonal and interannual variations of methane mixing ratio in the troposphere of the West Siberia derived from AIRS/Aqua"
- C2.20. Mordvin E.Yu., Volkov N.V., Lagutin A.A., Reznikov A.N. (ASU)  
"Western Siberia climate as derived from the RegCM4 regional model simulations"

C2.21. Kutnenko A.N. (ICMMG SB RAS)

"Discrete-analytical approximations in data assimilation problem for convection diffusion model of heat conduction in the atmosphere"

C2.22. Shulgina T.M., Genina E.Yu., Gordov E.P. (IMCES SB RAS/SCERT)

"Comparison of first generation reanalysis data for climate change study over Siberia"

### **18:20 Session C3. Terrestrial ecosystems of Northern Eurasia and global biogeochemical cycles. Chair V. Zuev**

#### **Lecture**

C3.1. Amber Soja (National Institute of Aerospace)

"Introduction to satellite data used as a tool to investigate our dynamic Earth"

**26 June, 2012**

### **9:00 Session C3. Terrestrial ecosystems of Northern Eurasia and global biogeochemical cycles. Chairs V. Zuev and A. Soja**

#### ***Invited reports***

C3.2. Zeller B., Derrien D. (INRA de Nancy), Achat D.L., Bakker M.R. (Bordeaux Sciences Agro), Nikitich P., Raudina T., Rusalimova O., Barsukov P. (ISCA SB RAS)

"Did future climate increase turnover of soil organic matter and biomass production in southern Siberia?"

C3.3. Prokushkin A.S. (IF SB RAS, SFU), Klimchenko A.V., Korets M.A. (IF SB RAS), Rubtsov A.V. (SFU), Kirryanov A.V., Shashkin A.V., Zrazhevskaya G.K. (IF SB RAS), Shibistova O.B. (IF SB RAS, Leibniz University), Guggenberger G. (Leibniz University), Richter A. (University of Vienna)

"Carbon in ecosystems of Central Siberia: the effect of forest invasion to tundra"

C3.4. Golubyatnikov L.L. (IAP RAS)

"Nitrogen cycle for terrestrial ecosystems: model approach"

C3.5. Zavalishin N.N. (IAP RAS)

"Biotic turnover in forest and peatland ecosystems of forest and forest-steppe zones in the European territory of Russia and Western Siberia under climate change"

**11:00-11:30 Coffee break**

C3.6. Panov A.V. (IF SB RAS), Heintzenberg J., Birmili W., Otto R. (LITR), Xuguang Chi (MPI for Chemistry), Meinrat Andreae (MPI for Chemistry)

"Studying of atmospheric aerosols over forest ecosystems of Central Siberia: first results from the "ZOTTO" observatory"

#### **Lecture**

C3.7. Zilitinkevich S.

"On prospects of Russian-Finnish collaboration in environmental observations, modelling and information systems"

**13:00-14:30 Lunch**

### Invited reports

C3.8. Moiseyenko K.B., Vivchar A.V. (IAP RAS), Mayer J.-C., Jürgens N. (MPI for Chemistry), Панов А. (IF SB RAS), Heimann M. (MPI for Biogeochemistry), Andreae M.O. (MPI for Chemistry)

”Impact of wildfires in Central Siberia on the regional-scale near-surface carbon monoxide abundance as measured at the ZOTTO tall tower station”

C3.9. Stepanenko V.M. (MSU), Yakovlev N.G. (INM RAS)

”Numerical simulation of generation, transport and oxidation of methane on the shelf of the Arctic Ocean”

C3.10. Cherkashin A.K. (IG SB RAS)

”Field and remote sensing research in the development of mathematical models for predicting and managing mountain-forest-steppe landscapes“

### 16:00– 16:30 Coffee break

C3.11. Korzh V.D. (IO RAS)

”General laws of global biogeochemical processes”

### Oral reports

C3.12. Dyukarev E.A., Golovatskaya E.A., Veretennikova E.E. (IMCES SB RAS)

”Emissions of greenhouse gases from the isolated wetlands of Ob’-Tom’ interfluve area”

C3.13. Timokhina A.V., Panova A.V., Onuchin A.A. (IF SB RAS), Verkhovets S.V. (SFU)

”Temporal variability and long-term trend of CO<sub>2</sub> mixing ratio over Central Siberian forest ecosystems”

### Short oral reports

C3.14. Solodyankina S.V., Cherkashin A.K. (IG SB RAS)

”Estimation of the vegetation capacity to absorb carbon dioxide emissions in landscapes of the south of Eastern Siberia“

C3.15. Zarov E.A. (USU)

”Composition and characteristics of peat (taiga zone middle Priirtish’e)”

C3.16. Makhnykina A.V., Sergeeva O.V. (SFU)

”The dynamics of carbon pool in phytomass and in coarse woody debris in the pine forests of Central Siberia”

C3.17. Kuzmenko E.I. (IG SB RAS), Maksyutov Sh. (NIES), Trofimova I.E., Vladimirov I.N. (IG SB RAS)

”Climate of northern West Siberia and mapping forest ecosystems for the assessment of carbon balance”

C3.18. Bogomolov V.Yu., Stepanenko V.M., Okladnikov I.G.

”Estimates of methane flux from surface based on assessment of components of atmosphere methane balance”

## **17:55 Session C2. Regional climate modeling. Chairs V. Krupchatnikov and A. Sokolov**

### Lecture

C2.23. Kurbatskiy A.F. (ITAM SB RAS, NSU), Kurbatskaya L.I. (ICMMG SB RAS)

”Features of eddy mixing and the turbulence energetics in stably stratified planetary boundary layers”

27 June, 2012

**9:00 Session C4. Air pollution transport and climate change. Chairs:  
M. Arshinov and V. Penenko**

**Lectures**

- C4.1. Penenko V.V., Tsvetova E.A. (ICMMG SB RAS)  
"Environmental forecasting on the base of online-integrated modeling technology"
- C4.2. Tarasova O. (WMO Headquarter)  
"Global Atmosphere Watch Programme: a framework for global atmospheric composition observations and analysis"

11:00 – 11:30 Coffee break

**Invited reports**

- C4.3. Arshinov M.Yu. (IAO SB RAS, TSU), Belan B.D. (IAO SB RAS), Machida T. (NIES), Sasakawa M. (NIES), Maksyutov Sh. (NIES), Shimoyama K. (Hokkaido University), Paris J.-D., Ciais P., Ramonet M. (CEA-CNRS-UVSQ), Nedelec P. (CNRS-UPS), Stohl A. (NIAR), Davydov D.K., Ivlev G.A., Kozlov A.V., Simonenkov D.V., Tolmachev G.N., Fofonov A.V. (IAO SB RAS)  
«Investigations of atmospheric trace species and aerosol particles in Siberia carried out by IOA SB RAS: current status and future needs»
- C4.4. Klimova E., Kilanova N., Zudin A. (ICT SB RAS)  
"Methods of an environment assessment by the use of mathematical model and the observational data"

**Oral reports**

- C4.5. Kilanova N., Klimova E., Zudin A. (ICT SB RAS)  
"Estimates of concentration and emissions of passive gases using data assimilation system for the Siberian region"
- C4.6. Sorokovikova O.S., Semenov V.N., Dzama D.A. (NSI RAN)  
"Simulation of radioactive pollution of seawater as a result of the accident at Fukushima 1 from the point of view of potential danger of radiation transportation on long distances"

13:00-14:30 Lunch

- C4.7. Sokolov A. (Université du Littoral Côte d'Opale), Dmitriev E. (INM RAS), Delbarre H., Augustin P., Nunez G. (Université du Littoral Côte d'Opale)  
"Impact analysis of local atmospheric dynamics to pollution transport and dispersion in urbanized coastal zone"
- C4.8. Yaroslavtseva T.V., Raputa V.F. (ICMMG SB RAS)  
"Methods of estimation for regional pollution of the north of Western Siberia by products of burning associated petroleum gas"

**Short oral reports**

- C4.9. Guzova E.N. (SibRIAP RAAS)  
"The chemical elements content in the peat of Tomsk region the southern taiga subzone"

- C4.10. Maksimova T.A., Dultseva G.G., Dubtsov S.N., Skubnevskaya G.I. (ICKC SB RAS)  
“Peroxyacyl nitrates: investigation of mechanisms of their formation in the atmosphere”  
C4.11. Seleznev A.A., Yarmoshenko I.V. (IIE UrB RAS)  
”Study of urban environmental pollution using puddle sediments as object of the study“

**15:15 Session C2. Regional climate modeling. Chair V. Krupchatnikov and A. Sokolov**

**Lecture**

- C2.24. Alexeev V.A. (University of Alaska)  
”WRF – a tool for regional climate studies”

**16:15 – 16:45 Coffee break**

**MAIRS/NEESPI/SIRS APN Workshop “Climate Change induced extremes in Northern Asia”**

**16:45. Introductory**

- P. Ya. Groisman (UCAR at NOAA/NCDC) and Ailikun (Institute of Atmospheric Physics, CAS)  
”Northern Eurasia Earth Science Partnership Initiative and Monsoon Asia Integrated Regional Study in 2011-2012: An Update”

**17:00. Joint Conference/Workshop Session C5/W1. Environmental and socio-economical consequences of climate change and related extremes. Chair: TBD**

**Invited reports**

- C5/W1.1. A. Soja (National Institute of Aerospace, NASA Langley Research Center, Hampton, VA, USA)  
“The influence of climate and weather on high-impact fires in Russia and resultant changes in ecosystems”  
C5/W1.2. Loboda T.V., French N.H.F., Owen R.C., Koziol B.W., Thelen B., Johnson J., Ginsberg M., Wu S., Billmire M. (University of Maryland, Michigan Technological University, San Diego County Health and Humans Services Agency, USA)  
“The role of satellite observations in assessing impacts of wildfire occurrence on respiratory health of population”

**18:00 Poster session**

**28 June, 2012**

**Practical Session (Field trip along the Baikal Lake to examine the state of environment and ongoing coastal processes)**



29 June, 2012

**MAIRS/NEESPI/SIRS APN Workshop “Climate Change induced extremes in Northern Asia” Organizers Ailikun, Evgeny Gordov, Vladimir Zuev and Pavel Groisman**

**9:00 Joint Conference/Workshop Session C5/W1. Environmental and socio-economical consequences of climate change and related extremes (continued).  
Chair TBD**

**Lecture**

C5/W1.3. Baklanov A. (DMI)  
“Rapid urbanisation: atmospheric pollution and climate interactions”

**Invited reports**

C5/W1.4. Jianlong Li, Chengcheng Gang, Yizhao Chen (Nanjing University, China)  
“Correlation Analysis between Herbage Yield and Ecoclimatic Factors and Carbon Storage Accounting of Desert Grassland in Xingjiang, China”

C5/W1.5. Baklanov A. (DMI)  
“New approach of integrated physical, chemical and biological weather modeling”

**11:00 – 11:30 Coffee break**

**Oral reports**

C5/W1.6. Borzenkova A.V., Shmakin A.B. (IG RAS)  
”Changes of applied cold season climatological characteristics for 1950-2006 in Russia”

C5/W1.7. Tungalag A., Tsolmon R., Bolortuul B. (National University of Mongolia)  
“Monitoring of Land degradation in the mining impacted areas of Mongolia”

C5/W1.8. Batbileg B., Tsolmon R. (National University of Mongolia)  
“Monitoring of crop yield in Bornuur soum using leaf area index”

C5/W1.9. Oyunbileg TS. (Mongolian State University of Agriculture)  
“Using satellite data for the monitoring survey of soil moisture at the arable land”

C5/W1.10. Robert Kopack (Michigan State University)  
“Land Use Change on Nuclear Ground: The Semipalatinsk Nuclear Test Site as Research Laboratory and Traditional Pastureland”

C5/W1.11. Zmijewski K., Becker R. (University of Toledo) “Assessing spatial and temporal variability of water storage within the Aral Sea watershed using GRACE (Gravity Recovery and Climate Experiment) and TRMM (Tropical Rainfall Monitoring Mission) data from 2002-2011”

**13:00 - 14:30 Lunch**

C5/W1.12. Balakay L., Zakarin E., Mirkarimova B. (JSC "KAZGEOKOSMOS"), Mahura A., Baklanov A., Sorensen Jens H. (DMI)

”Estimation of dioxide sulfur emissions influence from sources in Atyrau region of Kazakhstan on the neighbor States”

C5/W1.13. Razikova I.R. (NIGMI)

”Comparative analysis of the water quality of rivers with different types of sources on the basis of monitoring data in the Republic of Uzbekistan“



C5/W1.14. Usmanova SH.S. (NIGMI)

”Investigation of pollution of surface waters of small rivers of the Fergana valley with nitrogen-containing compounds”

C5/W1.15. Tusseyeva N., Dedova T. (JSC "KAZGEOKOSMOS")

“Construction of the modelling complex for the ecological risks analysis”

**15:30-16:00 Coffee break**

**16:00. Joint Conference/Workshop Session C6/W2. Organizational, observational and ICT infrastructure support of regional scale environmental studies in Northern Asia. Chairs I. Bychkov and V. Krutikov**

**Lectures**

C6/W2.1. T. Loboda (University of Maryland)

”Analyzing spectral information in satellite imagery”

C6/W2.2. O. Targulyan, S. Mikhaylov, A. Sarychev (Scanex)

”The Art of Thematic Interpretation of Satellite Images”

**30 June, 2012**

**9:00. Joint Conference/Workshop Session C6/W2. Organizational, observational and ICT infrastructure support of regional scale environmental studies in Northern Asia (continued). Chairs I. Bychkov and V. Krutikov**

**Invited reports**

C6/W2.3. I.V. Bychkov and G.M. Ruzhnikov (ISDCT SB RAS)

”Spatial data infrastructure as a basis for integration of interdisciplinary research of regional environment ”

C6/W2.4. Wyn Cudlip (GeoSeren Ltd.), Efim Kudashev (SRI RAS)

“Remote Sensing and International Co-operation for Virtual Data Centres and Environmental Studies”

C6/W2.5. Csiszar (NOAA), C. Justice, K. Vadrevu, W. Schroeder, L. Giglio, E. Ellicott (University of Maryland)

“New biomass burning observing capabilities from NPP VIIRS for continuing regional fire monitoring in Northern Eurasia”

C6/W2.6. Arutyunyan R.V., Semenov V.N., Sorokovikova O.S., Pripachkin D.A., Dzama D.A.(IBRAE RAN), Rubinstein K.G., Smirnova M.M., Ignatov R.Yu.(Hydrometcenter of RF)

”Application of regional hydrodynamic model WRF-ARW and computer code NOSTRADAMUS to simulate transport of radioactive impurities in the atmosphere using the NPP Fukushima-1 accident as an example. Project system to forecast emergency spread of radionuclides in the atmosphere for operating Russian nuclear power plants (PARRAD)”

**11:00 – 11:30 Coffee break**

C6/W2.7. Dmitriev E.V. (INM RAS), Kozoderov V.V. (MSU), Sokolov A.A. (Université du Littoral Côte d’Opale), Scherbakov M.V. (NPO Lepton), Kamentsev V.P. (TSU)

”Hard- and software system of airborne hyperspectral sensing of natural and man-made environment”

C6/W2.8. Yakubailik O.E., Kadochnikov A.A., Tokarev A.V. (ICM SB RAS)  
"Formation of information & computing support for environmental monitoring problems»  
C6/W2.9. Molorodov Yu.I. Ю.И. (ICT SB RAS), Zemtsev A.V., and Volkova  
D.A.(NSU)"Development of information infrastructure for analyses of ecological observations"

### 13:00 – 14:30 Lunch

C6/W2.10. Polikarpov S.A., Vishnyakov Yu.S., Zhizhchenko A.B., Sotnikov A.N. (CC RAS),  
Koshkarev A.V., Medvedev A.A. (IG RAS)  
"Distributed system for remote sensing data integration in the interest of the Earth science"  
C6/W2.11. Krutikov V.A. (IMCES SB RAS)  
"Modern informational technologies of climate and ecological monitoring and modeling"  
C6/W2.12. Gordov E.P. (IMCES SB RAS, TSU), Bogomolov V.Yu., Genina E.Yu., Gordova  
Yu.E. (IMCES SB RAS/SCERT), Krupchatnikov V.N. (SibrHRI), Lykosov V.N. (INM RAS,  
CC MSU), Okladnikov I.G. (IMCES SB RAS, ICT SB RAS), Titov A.G., Shulgina T.M.  
(IMCES SB RAS/SCERT)  
"Web-oriented production and research center "Climate" for monitoring of regional climatic and  
ecological changes and education support"

### 16:00-16:30 Coffee break

#### Oral reports

C6/W2.13. Martynova Yu. (SibrHRI, IMCES SB RAS), Zaripob R. (Hydrometcentre of RF),  
Petrov A. (SibrHRI), Krupchatnikov V. (SibrHRI)  
"Weather forecasting system for Siberia based upon the WRF ARW model"  
C6/W2.14. Abasov N.V. (MESI SB RAS)  
"Long-term forecasting and analyzing system GeoGIPSAR of the natural-climatic factors of  
energetics"  
C6/W2.15. Kurbatov G.A., Smirnova M.M. (MSU)  
"System for atmospheric boundary layer monitoring in Moscow region"  
C6/W2.16. Bazarov A.V., D.D. Darizhapov(IPM SB RAS)  
"Information system of processing TOMS ozone and ultraviolet data"  
C6/W2.17. Istomina E.I., Voropay N.N., Vasilenko J.V. (IG SB RAS)  
"Algorithm of Calculation of Air Temperature at Tunkinskaya Hollow with The Use of Data of  
Ground Measurements and Landsat Space Images"  
C6/W2.18. Batueva E.V., Kirbizhekova I.I. (IPM SB RAS)  
"Seasonal changes of polarimetric characteristics of forest"  
C6/W2.19. Krasnov O.A. (IAO SB RAS), Maksyutov S. (NIES), Kataev M.Yu., Kataev S.G.,  
and Korobko A.P. (TSUCSR)  
"Information system of processing and analysis of measurements of methane and carbon dioxide  
flow in atmosphere from Vasyugan wetlands"  
C6/W2.20. Zolotov S.Yu. (IMCES SB RAS)  
"Automated meteorological information and measuring system"  
C6/W2.21. Neradovsky L.G. (MPI SB RAS)  
"Role and Place of Geophysical Methods in Diagnostics, Control and Regional Prediction of the  
Thermal State of Permafrost in Siberia and Far East"

## **18:45 Session W3. Meteorological extremes and climate change in Northern Eurasia. Chair P. Groisman**

#### *Invited reports*

W3.1. Alexeev V.A. (University of Alaska)  
"Polar amplification and atmospheric heat transport"

1 July, 2012

**9:00. Joint Conference/Workshop Session C6/W2. Organizational, observational and ICT infrastructure support of regional scale environmental studies in Northern Asia (continued). Chairs I. Bychkov and V. Krutikov**

**Short oral reports**

C6/W2.22. Penenko A.V. (ICMMG SB RAS)

”Numerical algorithms for estimating thermal diffusivity of layered medium with application to thermodynamic processes in soil”

C6/W2.23. Kukanova E.A., Konstantinov P.I. (MSU)

”Creating a database of urban underlying surface parameters for high-resolution meteorological models“

C6/W2.24. Firsov K.M. (VSU), Frolkis V.A. (CIIFYIIC), Kozodoeva E.M., Kozodoev A.V. (IAO SB RAS)

”Information-computational system “Atmospheric radiation”. New section for modified radiation code“

C6/W2.25. Zuev D.V., Kashkin V.B. (SFU), Simonov K.V. (ICM SB RAS)

”Data processing of emissions sulfur dioxide in atmospheric“

C6/W2.26. Dagurov P.N., Chimitdorzhiev T.N. (IPM SB RAS)

”Radar interferometry of moist soil“

C6/W2.27. Dorzhiev B.Ch, Ochirov O.N. (IPM SB RAS)

”Studies of seasonal variations in electrical properties of a deciduous forest in the microwave range”

C6/W2.28. Sinyutkina A.A. (SibRIAP RAAS)

”GIS mapping of Tomsk region wetlands“

C6/W2.29. Kataev S.G., Kataev M.Yu. (TSUCSR)

”Mathematical method of compression of multidimensional time series of atmospheric gases distribution”

C6/W2.30. Konoshonkin A., Kustova N., Borovoi A. (IAO SB RAS)

”The application of scanning polarization lidar to observe the changes in clouds“

C6/W2.31. Bykov M.E., Chimitdorzhiev T.N., Tubanov Ts.A., Tatkov G.I., Zakharov A.I., Kirbizhekov I.I., Dmitriev A.V. (IPM SB RAS, ИГ СО РАН, IR RAS)

”Assessment of ice cover horizontal movements of the Baikal Lake on ALOS PALSAR interferometric data“

C6/W2.32. Kolotkov G.A., Penin S.T. (IAO SB RAS)

”Radiometer as an advanced device for monitoring radioactive emission from NPP“

C6/W2.33. Petrov A. (SibrHRI), Blinov D. (Hydrometcenter of RF), Martynova Yu. (SibrHRI, IMCES SB RAS), Zaripov R. (Hydrometcenter of RF), Krupchatnikov V. (SibrHRI)

”Technology mesoscale numerical weather prediction in the Siberian region on the base model COSMO-RU/SIB (7)“

C6/W2.34. Glagolev V.A. Kogan R.M. (CARPI FEB RAS)

”Creation electronic probability maps of emergence fires on the vegetation of natural and anthropogenic factors”

C6/W2.35. Titov A.G., Gordov E.P., Okladnikov I.G.

”Software framework of web-oriented production and research center for monitoring and forecasting of regional climatic and ecological changes and lifelong education support “Climate”

C6/W2.36. Gordova Yu.E., Martynova Yu.V., Titov A.G., Shulgina T.M.

”Support of education courses within platform “Climate”

## **10:00 Session W3. Meteorological extremes and climate change in Northern Eurasia. Chair P. Groisman**

### ***Invited reports***

W3.2. Sokolov A., Monier E., Scott J., Forest C. (Pennsylvania State University), Schlosser A. (MIT)

“Possible climate change over Eurasia under different emission scenarios”

W3.3. Groisman P. (NOAA)

“Manifestations of the Ongoing Climate Change in Northern Eurasia”

### **11:00 – 11:30 Coffee break**

W3.4. Krupchatnikov V. (SibrHRI), Martynova Yu. (SibrHRI, IMCES SB RAS)

”Investigation of a global climate change influence on Northern Hemisphere storm-track evolution using idealized model of climate system”

W3.5. Shiklomanov A.I., Prusevich A.A. (University of New Hampshire)

“Analysis of hydrological changes across Russia resulted from climate variability and human impact”

W3.6. Perekhodtseva E.V. (Hydrometcenter of RF)

”The automated forecast of the severe squalls and tornadoes over the territory of Russia, included Siberia and Far East, on the base of hydrodynamic-statistical forecast models”

### **13:00-14:30 Lunch**

W3.7. Rong Liu, Jun Wen, Xin Wang (CAREERI)

“Net radiation estimated from the geostationary satellite at all sky cases over the source region of the Yellow River”

### **Oral reports**

W3.8. Shiryaev M.V., Rubinstein K.G. (Hydrometcenter of RF)

“Methods for forecasting the hazard categories of meteorological events”

### **15:15 Poster session**

## **2 July, 2012**

## **9:00. Session W4. Drought and Flood Extremes. Chairs J. Li and P. Groisman**

### **Invited reports**

W4.1. Groisman P. (NOAA)

“Extreme events (droughts, wild fire, and downpours) over Northern Asia: Climatology, trends, and possible future changes”

W4.2. Renchin Tsolmon (Ulaan-Baator University)

“Climate change induced draughts in Mongolia”

W4.3. Peng Shi (Hohai University, Texas A&M University), Yuanbing Hou, Qiongfang Li, Zhicai Zhang, Simin Qu, Chao Chen, Tao Cai, Xiuqin Fang (Hohai University)

“Effects of land-use and climate change on hydrological processes in the upstream of Huai River, China”

W4.4. Wu ZHANG (Lanzhou University), Qingyun ZHAO (Lanzhou Central Meteorological Observatory), Jianping Huang (Lanzhou University)  
“Analysis of the Characteristics of Dust Event Occurred in the Hexi Corridor, China”

**11:00 – 11:30 Coffee break**

**Oral reports**

W4.5. Voropai N.N. Maksyutova E.V. Balybina A.S. (IG SB RAS)  
”Analysis and Reconstruction of Droughts and Waterlogging Periods in the Baikal Natural Region”

W4.6. Kaif Gill, Irfan Ashraf, Urooj Saeed, Naeem Shahzad (Pakistan WWF)  
“Pre and Post Flood Assessment through Space Technology”

**12:00 Session W5. Geosphere-biosphere interactions and related extremes.  
Chair V. Zuev**

**Invited reports**

W5.1. Zuev V. (IMCES SB RAS)  
“A new look at impact mechanisms of volcanogenic disturbance of the stratosphere on climate and ecological systems ”.

W5.2. Xiaodong Chen, Theodore J. Bohn, Dennis P. Lettenmaier (University of Washington)  
“Model estimates of Pan-Arctic lake and wetland methane emissions”

W5.3. Jianlong Li, Chengcheng Gang, Yizhao Chen (Nanjing University, China)  
“Advances in the Carbon Source/Sink Researches of Typical Grassland Ecosystem in China”

**13:30-15:00 Lunch**

**15:00 Round table with representatives of regional environmental decision-makers**

**APN CAPABLE Project “Climate change induced extremes”: Targeted to decision-makers and young scientists education & training activities  
Organizers E.Gordov and P Groisman**

**16:15. Conference and Workshop Closing Remarks**

**Adjourn**