

NORDIC WATER 2010

The XXVI Nordic Hydrological Conference
Hydrology: From research to water management



9–11 August 2010, Riga, Latvia

ORGANISERS

The Conference is being organised by the Latvian Environment, Geology and Meteorology centre (LEGMC) on behalf of the Nordic Association for Hydrology (NHF) in co-operation with University of Latvia (LU) and Latvian National Commission for UNESCO (UNESCO LNC). It is expected to receive the support from international and national bodies.





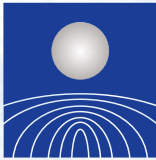
The Nordic Association for Hydrology (NHF), formed in 1972, aims at promoting hydrology as a science and at increasing the understanding of hydrology and of hydrological methods within applied sciences and water planning in the North. NHF

is an independent body, and its membership is open to all individuals and institutions/companies actively interested in hydrological work or research.

One of the main activities of NHF is arranging bi-annual Nordic Hydrology Conferences (NHC), which open forums for the presentation and discussion of key issues, studies, new developments and research on hydrology and related issues. NHCs are also forums for the general exchange of news and views as well as knowledge.

Promotion of scientific activity has been in key role for NHF, and it has been publishing an international scientific journal, Hydrology Research (previously Nordic Hydrology), since 1970. Hydrology Research includes articles from all fields of hydrology, and it is a link between the basic hydrological research and the practical application of scientific results for water management purposes.

NHF supports young researchers and doctoral students e.g. by opening up grants for participation in NHC, and also awarding bi-annually the best papers in Hydrology Research and the best student paper and student poster presented at NHCs. NHF also offers funding possibility for arranging courses and seminars on hydrology.



**LATVIAN
ENVIRONMENT, GEOLOGY AND
METEOROLOGY CENTRE**

The very beginning of weather observations in Latvia are found in 1532, when Dinaburg monks documented floating of ice in the Daugava at Daugavpils. Riga weather station on regular observation basis was opened in 1795. In 1872 the measurements of water level of the Daugava (in Riga) were started.

The first state institution of the Latvian Republic in the sphere of meteorology has been created in Riga in 1920; in 1925 collection of systematic water flow measurements has been started. In 1941 the USSR State Hydrometeorology administration substructure in Latvia has been created by merging all meteorological and hydrometric services existing in the Republic of Latvia.

After the renewal of independence of Latvia in 1991 the most important events for the further development of hydrometeorology were joining the Republic of Latvia to WMO in 1992, the modernisation of meteorological and hydrological observing network and joining to European Union in 2004, what allows being an equivalent partner in a global co-operation.

Nowadays hydrology is integrated in common environmental observations system managed by Latvian Environment, Geology and Meteorology Centre (LEGMC).

LEGMC is a multifunction institution with a spacious responsibility in following areas - meteorology, hydrology, air and water quality, geology, radiation, chemical and hazardous substances.

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**LATVIJAS
UNIVERSITĀTE**
ANNO 1919

The University of Latvia (UL) named at that time «The Latvia Higher School» was founded on September 28, 1919 on the basis of the former Riga Polytechnic. In 1923 this school received its now resumed name – the University of Latvia (Universitas Latviensis). UL was the first university worldwide which presented an opportunity to obtain higher education in the Latvian language.

The UL with its 20,000 students, 13 faculties and 21 research institutes is the second largest comprehensive university in the Baltics. The University offers 154 state-accredited academic and professional study programs: 58 undergraduate, 72 graduate and 24 doctoral programs.

At UL, you can obtain an academic bachelor's or master's degree in humanities (philology, philosophy, history, theology a.o.), pedagogy, social sciences (economics, communication studies, political science, psychology, sociology, law, management a.o.), sciences (biology, physics, geography, geology, chemistry, mathematics, environmental science a.o.), and health sciences (pharmacy, nursing). The UL also offers professional qualifications or bachelor's or master's degree, including MD, qualifications of a doctor, teacher, social worker, economist, translator/interpreter etc.

The UL has signed 89 bilateral cooperation agreements with universities in 32 countries. Each year, more than 300 students from the UL study abroad with the help of international exchange programs, thus perfecting their skills and abilities; in turn, the University of Latvia welcomes approx. 250 international students. The most active exchange takes place within the *Erasmus* programme – the UL has signed 434 cooperation agreements with 257 universities in Europe.

At UL, research is conducted in over 50 research fields which represent 4 main areas of enquiry: the humanities, sciences, social sciences, and education sciences. Traditionally strong research directions are in the fields of Earth sciences and hydrology amongst them.

With the help of the funding of the European Structural Funds, procurement and modernisation of equipment is carried out in several institutes and faculties. This will help to further improve the competitiveness of the achievements of our scientists among the global scientific community.

Each year, the University researchers take part in the development of around 900 projects, participate in approx. 1,000 international scientific conferences, publish approx. 700 research papers in peer reviewed journals.



Apvienoto Nāciju
Izglītības, zinātnes
un kultūras organizācija

UNESCO Latvijas Nacionālā komisija

United Nations Educational, Scientific and Cultural Organization (UNESCO) is an intergovernmental organisation, a United Nations agency established in 1945 with a mandate to promote education, sciences, culture and communication and information as the core issues for the development and well-being of the society. Its mission is to function as a forum and

platform among all the civilisations, cultures and people of the world so to secure culture of peace, eradication of poverty, intercultural dialogue and sustainable development. UNESCO currently has 193 Member States.

UNESCO's scientific programmes address wide range of issues under the overarching aim to further understanding of and raise the awareness about the whole complexity of the sustainable development. These include freshwater, marine, ecological, earth and basic sciences, climate, environmental, energy and other issues as well as relevant policy development and advice and capacity building. UNESCO acts as an advocate for sciences, as a platform for sharing ideas and as a standard setter. It promotes dialogue between scientists and policy makers and empowers and catalyses innovative initiatives in the field of international cooperation in science, in particular through networks and capacity building activities.

Latvia joined UNESCO in 1991 and established the Latvian National Commission for UNESCO in 1992. Since then science programmes in Latvia have mainly been implemented by mobilising and involving various relevant and interested stakeholders (state and local institutions, schools, universities, research institutes and civil society) as well as individual experts in their promotion and development. As a result in 1997 the North Vidzeme Biosphere reserve was established and in 2001 a UNESCO Chair in Sustainable Coastal Development was opened at the University of Latvia. Currently science programme development in Latvia is being coordinated and advised about by the Science programme council at the Latvian National Commission for UNESCO and the most actively implemented programmes have been within the framework of different international years, e.g. International Year of Planet Earth, International Year of Astronomy and International Year of Biodiversity.

Latvian National Commission for UNESCO, Pils Square 4-206, Riga, LV-1050, www.unesco.lv

ORGANISING COMMITTEE

Iveta Dubakova, LEGMC, chairperson
Māris Kļaviņš, LU
Vita Slanke, LEGMC
Dagnija Baltiņa, UNESCO LNC

SCIENTIFIC COMMITTEE

Elga Apsīte, University of Latvia, Latvia, chairperson
Agrita Briede, University of Latvia, Latvia
Aija Dēliņa, University of Latvia, Latvia
Alvina Reihan, Tallinn University of Technology, Estonia
Andris Andrušaitis, University of Latvia, Latvia
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Māris Kļaviņš, University of Latvia, Latvia
Tatjana Kolčova, Latvian Environment, Geology and Meteorology Center, Latvia
Uldis Bethers, University of Latvia, Latvia
Viesturs Jansons, Latvia University of Agriculture, Latvia
Thorsteinn Thorsteinsson, Icelandic Meteorological Office, Iceland

CONFERENCE THEMES

- Climate Change Impacts and Adaptation Strategies
- Water Management within the Context of European Directives
- Hydrological Information System and Developments in Modelling
- Measurements and Monitoring
- Extremes and Uncertainties
- Groundwater and Surface Water Interactions
- Cold Climate Hydrology

These topics cover all types of water, including rivers, lakes, water reservoirs, groundwater, coastal or marine waters, snow, ice and glaciers.

The conference aims at the creation of an interdisciplinary communication forum, providing a meeting place for representatives of different fields – hydrology, climatology, ecology, hydro engineering, mathematics, water management, education, economics, legislation, politics, and others.

The topic “Water Management Within the Context of European Directives” includes European Union directives (Water Framework Directive, Flood Directive, Habitat Framework Directive, Marine Strategy Framework Directive etc.) and other conventions and alliances like OSPAR, HELCOM.

NORDIC WATER 2010 – FINAL PROGRAMME

The XXVI NHC "Hydrology: From research to water management" – Riga, Latvia

Sunday, August 8

16:00–20:00 Registration

Monday, August 9

08:00 Registration

09:00 Welcoming

Address by Minister Raimonds Vējonis, *Ministry of Environment of the Republic of Latvia*

Address by Rector Mārcis Auziņš, *University of Latvia*

Address by Iveta Dubakova, *Chairperson of the Organising Committee of the Conference*

Address by Riitta Kamula, *Chairperson of the Board of the Nordic Association for Hydrology*

Plenary Session (1), Great Hall

Chaired by Professor Māris Kļaviņš, University of Latvia

09:30 Siegfried Demuth UNESCO International Hydrological Programme,
Chief of the Hydrological Processes and Climate Section at the Division of Water Sciences at UNESCO

10:15 Lothar Schüller EUMETSAT and its activities related to Hydrology and Water Management,
Scientific coordinator for its Satellite Application Facility (SAF), EUMESTAT

11:00 Coffee break

Parallel Session: Measurements and Monitoring (1),
Great Hall

Chaired by David Gustafsson (Sweden)

Parallel Session: Water Management within the Context of
European Directives (2), Auditorium 13

Chaired by Berit Arheimer (Sweden)

11:30 Møen K. M. Automated discharge measurements using dye dilution method – Project "AutoQ"

11:30 Povilaitis A. Retention and source apportionment of nutrients in surface waters of Lithuania

11:50 Cuevas J. G., Calvo M., Little C., Pino M. Diel fluctuations in streamflow: are they real?

11:50 Vaikasas S., Lamsodis R. Dams with hydroelectric stations in small rivers: sediment and nutrient retention

12:10 Béroud D. Swiss hydrometry: a multipurpose network

12:10 Müller-Wohlfel D. I., Højberg A. L. The Danish water resources model – towards a uniform national basis for the implementation of the water framework directive

12:30 Snorrason A., Vörösmarty C. J., Beldring S., Destouni G., Hardardottir J., Hasholt B., Pundsack J., Puupponen M., Thorsteinsson T., Vuglinsky V. ARCTIC-HYDRA: a PAN-ARCTIC consortium for the study of the arctic hydrological cycle and its role in the global climate system

12:30 Rimkus A., Vaikasas S. Modelling of influence of HES dams' height in small rivers on sediment retention

12:50	Demchenko N.	Analysis of thermohaline structure of the Baltic Sea during spring period: response to cold winter 2010	12:50	Jansons V., Sudārs R., Abramenko K.	Scale issues for assessment of nutrient loss from agricultural land in Latvia
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13:10	Lunch				
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Parallel Session: Measurements and Monitoring (1), Great Hall <i>Chaired by Hege Hisdal (Norway)</i>			Parallel Session: Water Management within the Context of European Directives (2), Auditorium 13 <i>Chaired by Arvydas Povilaitis (Lithuania)</i>		
14:10	Gustafsson D., Sommer W., Ahlberg J.	Measurement of liquid water content in snow and its application in snow hydrological modelling	14:10	Gulbinas Z.	Harmonization of EU Directives in Water Management of Dovine River basin: implementation phase
14:30	Landrø H., Trondsen E.	Evaluation of Norwegian snowpillow stations	14:30	Hansen A. K., Madsen H., Bauer-Gottwein P., Rosbjerg D., Falk A. K., Seifert D.	Multi-objective optimisation of the management of Søndersø water works, Denmark
14:50	Volchek A., Kozak A., Kostiuk D., Petrov D.	Electronic system of flood monitoring and visualization	14:50	Bebris R. A.	River basin planning in Latvia within the context of European Directives
15:10	Kasvi E., Alho P., Vaaja M., Kukko A., Mäkinen J.	Applying mobile terrestrial laser scanning and acoustic doppler profiler in river dynamic survey – a validation approach for 2D hydraulic modelling	15:10	Saarinen T., Kløve B.	Seeking sources and new water management solutions of acidified rivers

15:30	Coffee break				
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Parallel Session: Measurements and Monitoring (1), Great Hall <i>Chaired by Tom Frisk (Finland)</i>			Parallel Session: Cold Climate Hydrology (3), Auditorium 13 <i>Chaired by Thorsteinn Thorsteinsson (Iceland)</i>		
16:00	Huitu H., Thessler S.	Detecting nutrient load responses to heavy rain events using catchment-scale in-situ wireless sensor network	16:00	Ahlberg J., Gustafsson D.	Snow melt runoff simulations using ensemble kalmant filter assimilation of distributed snow data
16:20	Indriksons A., Zālītis P.	The balance of water and biogenous elements in drained forests on peat soils	16:20	Futter M., Rayner D., Rankinen K., Laudon H.	Modelling climate change impacts on soil temperature and snow dynamics in the Swedish boreal forest
16:40	Kļaviņš M., Koko- riķe I., Ansonē L., Eglīte L., Purma- lis O., Jansons V., Rodinov V., Springe G.	Compositional changes of dissolved organic matter in surface waters of Latvia	16:40	Thorolfsson S. T.	Cold climate urban hydrology – examples from Norway and Iceland
17:00	Naumenko M., Guzivaty V., Karetnikov S.	Spatial-temporal variation in the thermal structure of lake Ladoga	17:00	Pagneux E.	Mapping depth and extent of ice jam induced inundations: a case study from south Iceland

17:30	Poster session, Great Hall				
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19:00	Welcome Reception				
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Tuesday, August 10

Plenary Session (2), Great Hall

Chaired by Riitta Kamula,

Chairperson of the Board of the Nordic Association for Hydrology (Finland)

09:00	Esko Kuusisto	Impacts and adaptation – how vulnerable are we? <i>Hydrologist and water resources expert, Finnish Environment Institute, Finland</i>
09:45	Rolf Johnsen	The climate change challenge in coastal zones and upstream with special emphasis on groundwater. Collaboration and innovation in society, science and industry is needed. <i>Coordinator of the Interreg IVB project “CLIWAT”, Region of Midtjylland, Denmark</i>

10:30 Coffee break

Parallel Session: Climate Change Impacts and Adaptation Strategies (4), Great Hall <i>Chaired by Deborah Lawrence (Norway)</i>		Parallel Session: Hydrological Information System and Developments in Modelling (5), Auditorium 13 <i>Chaired by Uldis Bethers (Latvia)</i>	
11:00	Snorrason Á., Björnsson H., Harðardóttir J.: presented by Thorsteinsson T.	The Climate and Energy Systems (CES) project: a summary of main results	11:00 Beldring S., Colleuille H., Haugen L. E. Modelling soil frost and water balance in Norway
11:20	Frisk T.	Adaptation to climate change in Tampere region, Finland	11:20 Lindström G., Arheimer B., Dahné J., Donnelly C., Strömqvist J. S-HYPE – a high resolution model for water and nutrients covering Sweden
11:40	Hisdal H., Lawrence D.	Climate change impacts on hydrology and adaptation needs related to water resources management in Norway	11:40 Herrnegger M., Nachtnebel H. P., Haiden T. Evapotranspiration in high Alpine catchments – an important part of the water balance?
12:00	Arheimer B., Donnelly C., Strömqvist J., Dahné J.	BALT-HYPE – a tool for evaluating the combined effect of measures for nutrient load reduction and climate change impact	12:00 Flener C., Alho P., Lotsari E., Käyhkö J. Modelling river bathymetry and substrate from aerial photography
12:20	Olsson J., Dahné J., German J., Amaguchi H.	Urban hydrological climate change impact assessment: some Swedish experiences	12:20 Podgornyj K.A. Preparation of information database necessary for mathematical models of water ecosystems' design. Difficulties and unsolved problems
12:40	Deelstra J., Eggestad H. O., Iital A., Jansons V., Barkved L. J.	The role of subsurface drainage systems and scale in runoff generation processes in agricultural dominated catchments	12:40 Ferencik I., Niemi T. On site hydrological modeling

13:00 Lunch

14:00 Mid-conference Tours

19:00 Conference Dinner

Wednesday, August 11

08:30 NHF General Assembly, Great Hall

10:00 Coffee break

Parallel Session: Climate Change Impacts and Adaptation Strategies (4), Great Hall <i>Chaired by Troels Kærgaard Bjerre (Denmark)</i>		Parallel Session: Extremes and Uncertainties (6), Auditorium 13 <i>Chaired by Jurate Kriauciuniene (Lithuania)</i>	
10:30	Carambia M., Krahé P., Nilson E., Rachimow C.	10:30	Korhonen J., Kuusisto E.
	Bias correction models for regional climate simulations: comparative analyses in the context of hydrological impact modelling		Time period dependence of trends in Finnish hydrological data
10:50	Jakkila J., Veijalainen N., Vehviläinen B.	10:50	Roald L.A.
	Impacts of climate change on hydrology and lake regulation in Oulujoki watershed		The link between atmospheric circulation and large rainfall floods in Norway
11:10	Novicky O., Fridrichova R., Mrkvickova M.	11:10	Lawrence D.
	Research objectives and advances in developing adaptation strategies in the Czech Republic		Hydrological projections for changes in flood frequency under a future climate in Norway and their uncertainties
11:30	Reihan A., Kriauciuniene J., Kolcova T., Saul M.	11:30	Rana A., Bengtsson L.
	Temporal variation of spring flood in rivers of the Baltic States		Rainfall and climate scenarios for design of drainage system

12:00 Lunch

Parallel Session: Climate Change Impacts and Adaptation Strategies (4), Great Hall <i>Chaired by Alvin Reihan (Estonia)</i>		Parallel Session: Groundwater and Surface Water Interactions (7), Auditorium 13 <i>Chaired by Viesturs Jansons (Latvia)</i>	
13:00	Kriauciuniene J., Reihan A., Kolcova T., Meilutyte-Barauskiene D.	13:00	Dimakis P., Beldring S.
	Variability of runoff regional series in the Baltic countries		Modelling the water flux exchange between Norwegian aquifers and rivers and climate change effects
13:20	Dubra V., Grecevičius P., Dumbrasas A.	13:20	Vaht R., Sepp M., Järvet A.
	Flood risk assessment in seashore-related river basins of Lithuania		The impact of oil shale mine water in the river purtse hydrological regime of north east Estonia
13:40	Sennikovs J., Bethers U.	13:40	Dēliņa A., Grinberga B., Senņikovs J.
	Uncertainty of temperature and precipitation projections for the future climate of Latvia		Effects of karst processes on surface water and groundwater hydrology at Skaistkalne vicinity, Latvia
14:00	Pallo I., Kurpniece L., Apsīte E.	14:00	Helgason V. K.
	River runoff patterns under changing climate conditions in Latvia		Groundwater levels around Haslon reservoir, east Iceland, before and after impounding

14:30 Closing, Great Hall

Closing remarks by Professor Māris Kļaviņš, *University of Latvia*,
Member of the Organising Committee of the Conference

Riitta Kamula, *Chairperson of the Board of the Nordic Association for Hydrology (Finland)*

15:00 Departure

Thursday, August 12

Excursions

Monday Evening (17:30–18:30), August 9 – Poster Session

Climate Change Impacts and Adaptation Strategies

Veijalainen N., Lotsari E., Alho P., Vehviläinen B., Käyhkö J.	National scale assessment of climate change impacts on flooding in Finland
Kalantari Z., Jansson P. E., Sassner M., Stolte J.	Modelling high resolution discharge dynamics nearby road structure, using data from small catchments and three different models
Røhr P. C., Haddeland I.	Predicting the influence of climate change on power production in upper Glomma River basin
Volchek A., Shelest T.	Influence of the climate warming on rainfall floods of the rivers of the western Dvina basins within Belarus
Kuimova L., Sherstyankin P.	Recent reduction of sea ice in the arctic and decrease of maximal ice thickness on lake Baikal
Kolcova T., Lizuma L.	Ice regime of Latvian rivers in the 20th century
Rudlapa I., Apsite E.	Long-term changes of low flow in Latvian rivers

Water Management within the Context of European Directives

Roose A.	Advancing European water policy discourse in the series of European seminar on geography of waters
Kamula R., Kløve B.	Value – a new doctoral training program on integrated catchment and water resources management
Daubariene J., Valiuskevicius G.	Possibilities to use the sailing means on Lithuanian lakes according to legislation
Vaikasas S., Sabas G., Palaima K.	Fr number for small hydroelectric station impact on biotic environment
Pachel K., Klõga M., Iital A.	Scenarios for reduction of nutrient load from point sources in Estonia
Vassiljev A., Blinova I.	Drained peat soils as source of diffuse pollution
Lagzdins A., Jansons V., Abramenko K.	Application of SWAT model to the Berze agricultural catchment

Hydrological Information System and Developments in Modelling

Bica B., Herrnegger M., Kann A., Haiden T., Nachtnebel H. P.	Enhanced precipitation analysis in Alpine catchments by combining a meteorological analysis and nowcasting system with a hydrological model
Kijsomporn P.	Two dimensional flow modeling using RIC-NAYS. A case study of Ping River
Kurpniece L., Cēbers K.	The application of the conceptual IHMS-HBV model for simulation of hydrological processes: the case of River Gauja watershed

Measurements and Monitoring

Bārdule A., Lazdiņš A., Bārdulis A.	Monitoring of deposition and soil solution in level II forest monitoring plot in Latvia
Kokorīte I., Kļaviņš M., Sprinģe G., Rodinov V.	Long-term changes of dissolved organic carbon flows in Latvia
Skuja A., Ozolins D., Briede A.	Seasonal and diurnal variation of current velocity in macroinvertebrate drift study in Latvian lowland streams
Mäkinen R.	Annual and temporal variation of percolation in four groundwater stations in different part of Finland
Andzane I., Bernans I., Dubakova I.	Spring flood in Latvia: a case study of the Lielupe basin
Volchek A., Parfomuk S., Natarova O.	Variations in the annual runoff on an example of the west Dvina River
Lamsodis R., Povilaitis A.	Hydrological effect of beaver damming activity in drainage channels, Lithuania
Urbaniak M., Kiedrzyńska E., Zalewski M.	The role of a lowland reservoir in the transport of nutrients and micropollutants along the river continuum
Dybvik K.	Comparison of different instruments for discharge measurements in rivers

Extremes and Uncertainties

Bethers P., Timuhins A., Bethers U.	Skill assessment of regional climate models: hydrological perspective
Alho P., Koivumäki L., Lotsari E., Käyhkö J., Saari A., Flener C., Hyypä H.	Uncertainties in flood hazard mapping and estimation of building damages for a river flood
Gjunsburgs B., Jaudzems G., Govsha E.	Influence of the hydrograph shape on the scour development with time at engineering structures in river flow
Gruberts D.	The probability of low-flow extremes of the Daugava River at Daugavpils
Mikhailova M.	Extreme hydrological events on the lower Danube and in the mouth area during recent decades
Avotniece Z., Rodinov V., Lizuma L., Kļaviņš M.	Trends of changes of extreme climate events in Latvia

Groundwater and Surface Water Interactions

Vircavs V., Abramenko K., Lauva D.	Modelling of groundwater table fluctuations in agricultural monitoring stations
Rudzianskaite A.	Correlations between the quality of surface water (stream) and ground water in the Lithuanian karst zone

Cold Climate Hydrology

Wu S., Jansson P. E., Zhang X.	Model for temperature, moisture and surface energy balance in bare soil with seasonal frost condition in China
Stolte J., French H.	Evaluation of event discharge in a small catchment in Norway during the winters of 2009 and 2010



Siegfried Demuth studied Hydrology, Mathematics, Physics, Statistics and Meteorology at the University of Freiburg, Germany and received his diploma in Physical Geography/Hydrology in 1981. Since 1981 he worked as a researcher at the Institute of Hydrology at the University of Freiburg. From 1983 to 1985 he worked as a researcher at the University of Tuebingen. In 1985 he received his doctoral degree in Natural Sciences at the University of Freiburg with a study on the water budget and water quality aspects of the Fayium Oases in Egypt. From 1985 to 1988 he undertook a research visit to the Centre for Ecology and Hydrology (formerly the Institute of Hydrology) at Wallingford, UK where he developed, in collaboration with a small group of international scientists, the Flow Regimes from International Experimental and Network Data (FRIEND) project, now a major cross-cutting programme of the IHP.

Upon his return to the Institute of Hydrology at the University of Freiburg in 1989, he co-developed fully-fledged curricula in hydrology. In 1993 he received his 'Habilitation in Hydrology'. In 1999 he was appointed Professor of Hydrology and his principal research fields were low flow and drought analysis, regionalization and climate change. In 2003 he became Director of the German

IHP/HWRP Secretariat until he joined IHP/UNESCO in November 2006 as Chief of the Hydrological Processes and Climate Section of the Division of Water Sciences. At UNESCO IHP he is responsible for the cross-cutting programme FRIEND, global change and the International Flood Initiative.

From 1994 to 2003 he held the position of Deputy Director of the Institute of Hydrology at the University of Freiburg. Prof. Demuth has served as officer on various committees of the International Association of Hydrological Sciences (IAHS), particularly as Secretary of the International Commission of Surface Water and later as the President of the International Commission of Surface Water. From 2004-2006 he served on the IHP Bureau as Vice-Chairperson representing UNESCO Member States from Europe and North America. During the same period, he also served as Chairperson of the German IAHS Committee and as a member of the Scientific Board of the German Hydrological Society (DWA). From 2003-2006, he was Hydrological Adviser of the President of the German Weather Service to WMO, and from 2004 to 2006, he was a member of the Advisory Working Group of the Commission for Hydrology (Chy) of WMO. From 2003-2006 he was member of the German National Commission for UNESCO. He was associate editor of the Hydrological Sciences Journal and reviewer of several international journals.

He has been awarded the UNESCO Team Award 2009 for the Science Sector of UNESCO addressing water hazards through an integrated approach.



Esko Kuusisto

PhD **Esko Kuusisto** is a hydrologist and water resources expert, working at the Finnish Environment Institute (SYKE). His duties have recently included assessments of climate change impacts on water resources, both nationally and internationally. His research topics have included e.g. snow, ice, lakes and world water issues. He has authored and edited several books on water, climate and global change. He has also been involved in development projects in e.g. Vietnam, Ethiopia, China and Cambodia. He has three children and two granddaughters.



Dr. Lothar Schüller
SAF Network Scientific Coordinator

Lothar Schüller, was appointed SAF Network Scientific Coordinator in July 2004.

As a Scientific Coordinator Lothar coordinates and monitors the activities in EUMETSATs Satellite Application Facilities (SAFs) with special focus on science. The SAFs are dedicated operational centres, located at the National Weather Services of the EUMETSAT member states, which provide users with data, products and services related to specific topics and application areas.

He is responsible for organising reviews, workshops and the SAF visiting scientist programme and as well as for the coordination of the federated activities, in which the SAF work with other SAFs and the EUMETSAT Central Facilities in Darmstadt. As part of his duties is to promote the services of the SAF Network and to help integrating their assets and products in international initiatives like the Global Monitoring for Environment and Security (GMES) and the Global Climate Observing System (GCOS). The job includes as well the membership in the SAF Steering Groups for the Climate Monitoring SAF and the

SAF on Support to Nowcasting and Very Short Range Forecasting.

Before joining EUMETSAT, Lothar Schüller was working for ESA ESTEC in support the EarthCARE and the ADM-Aeolus missions. He earned his Diploma degree in Physics and his PhD from the Freie Universität Berlin in Germany. Already early in his university education, he stated to get interested in the field of atmospheric physics and meteorology in particular in the interaction between radiation and cloud particles.

Working as a researcher in the Institute for Space Science for many years, he participated in many flight campaigns to measure directly the radiative properties of clouds. Developing retrieval algorithm to retrieve climate relevant information about cloud formation under polluted conditions was one of the main objectives of his research. During his career as a researcher, he was visiting scientist at Météo France in Toulouse, University of Kansas and the University of Wisconsin-Madison.

Apart from his job, Lothar enjoys very much his family, hiking, playing the piano and singing in choirs.



Rolf Johnsen, Hydrogeologist dealing with climate change and stakeholder involvement

Rolf Johnsen is employed by Central Denmark Region in the department of contaminated sites and natural resources.

Since 2008 he has been coordinator of a Interreg IVB project “Adaptive and sustainable water management and protection of society and nature in an extreme climate (CLIWAT)” The project is mainly focusing on climate change and groundwater. This includes modelling the changes in seven pilot areas in northern Europe and involving the affected sectors. The group of scientist and planners within the CLIWAT project is building upon a former project “BurVal” a finalized EU project exploring buried valleys in northern Europe.

During 2009 and 2010 Mr. Johnsen has been involved in a regional mapping of the challenges in relation to climate change and water in Central Denmark Region. Through workshops the participants are pointing out the future challenges and briefly finding the optimal solutions. The head lines are knowledge, interdisciplinarity and involvement. The work is on going and involves private, public and scientific sectors.

Further Mr. Johnsen is member of the Encore steering group. The group is planning Environmental Conference of the Regions of Europe and is a European platform for political co-operation between regions in Europe.

GENERAL INFORMATION

VENUE

Venue of The XXVI Nordic Hydrological Conference “Hydrology: From research to water management” is University of Latvia, Raina blvd. 19, Riga, Latvia.

LANGUAGE

The official language of the conference is English.

BADGES

Please wear the badge the whole conference time for entrance in the conference halls, coffee breaks, lunches, exhibition area, conference reception and conference dinner.

POSTERS

Posters should be delivered to the registration desk during the registration hours. Posters will be stuck up by the conference assistants.

REGISTRATION HOURS

Sunday, August 8, 16:00–20:00.

Monday, August 9, 08:00–19:00.

Tuesday, August 10, 08:00–15:00.

Wednesday, August 11, 08:00–15:00.

ACCESS TO INTERNET

For accessing the Internet in the conference venue University of Latvia please use:
login: wlan08; password: august.

SOCIAL PROGRAMME

WELCOME RECEPTION

Monday, August 9, 19:00–22:00, Museum of the History of Riga and Navigation, 4 Palasta str.

Conference welcome reception will take place in the Museum of the History of Riga and Navigation. Enjoy the snacks, a glass of wine and jazz music! Meet your colleagues in informal atmosphere!

Departure by foot from the conference venue – University of Latvia – at 18.30, you'll be accompanied by the conference assistants. Museum is situated in Old Riga appr. in 8–10 min. walking distance.

CONFERENCE DINNER

Tuesday, August 10, 19:00–23:00, Recreation centre “Lido”, 76 Krasta str.

National style dinner in really Latvian environment! Recreation centre “Lido” is the biggest and the most visited place both for the local people and the guests of Riga. The own brewed “Lido” beer will be offered during the dinner.

Departure by buses from the conference venue at 18.30. After the dinner you will be transferred back to the University of Latvia.

CONFERENCE TOURS

MID–CONFERENCE TOURS, Tuesday, August 10

Tours will take place in case of min. 15 persons (for Riga walking tour group min. is 10 persons), tickets can be obtained until the end of the first conference day (August 9)

GREEN TOUR TO GAUJA NATIONAL PARK

Departure at 14:00 from the conference venue, after the tour you'll be driven directly to the conference dinner

Price: 55 EUR

At the heart of Gauja National park in 50 min. drive from Riga we find the resort town of Sigulda. Thanks to particularly scenic landscape the area of Sigulda has been titled – Latvian Switzerland! During the tour “Walk down the gnostic path!” guests are showed most interesting nature attractions of Gauja National Park – rocks & caves, green world – greenwoods, meadows and herbs, find out about the birds and animals living there. Enjoy, be inspired and relaxed at the most attractive national park of Latvia!

Enjoy light snacks in traditional tavern “Kungu Rija” having had a good walking exercise.

RIGA WALKING TOUR

Departure at 14:30 from the conference venue, returning at 17:00

Price: 25 EUR

The tour encompasses the most significant sights of Riga. Enjoy the beauty of the ancient Hanseatic city, while strolling through the cobble-stone, picturesque streets of the Old Town. In Old Riga you will see the Dome Cathedral, the Church of St. Peter, the old Guild Houses, the Swedish Gate, the architectural ensemble Three Brothers, view the many wonderfully restored buildings, now housing cosy restaurants, cafes, bars and souvenir shops.

The special highlights during the tour – Art Nouveau architecture and Latvian traditional chocolate degustation in one of the most interesting places in Riga – Bergs Bazaar, historical pedestrian village-like enclave inspired by the 19th century arcades.





CONFERENCE SECRETARIAT



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