HydroPredict' 2010

Draft, 13 September 2010

CONFERENCE PROGRAMME

2nd International Interdisciplinary Conference on
Predictions for Hydrology, Ecology, and Water Resources Management:
Changes and Hazards caused by Direct Human Interventions and Climate Change

20 - 23 September 2010
Prague, Czech Republic

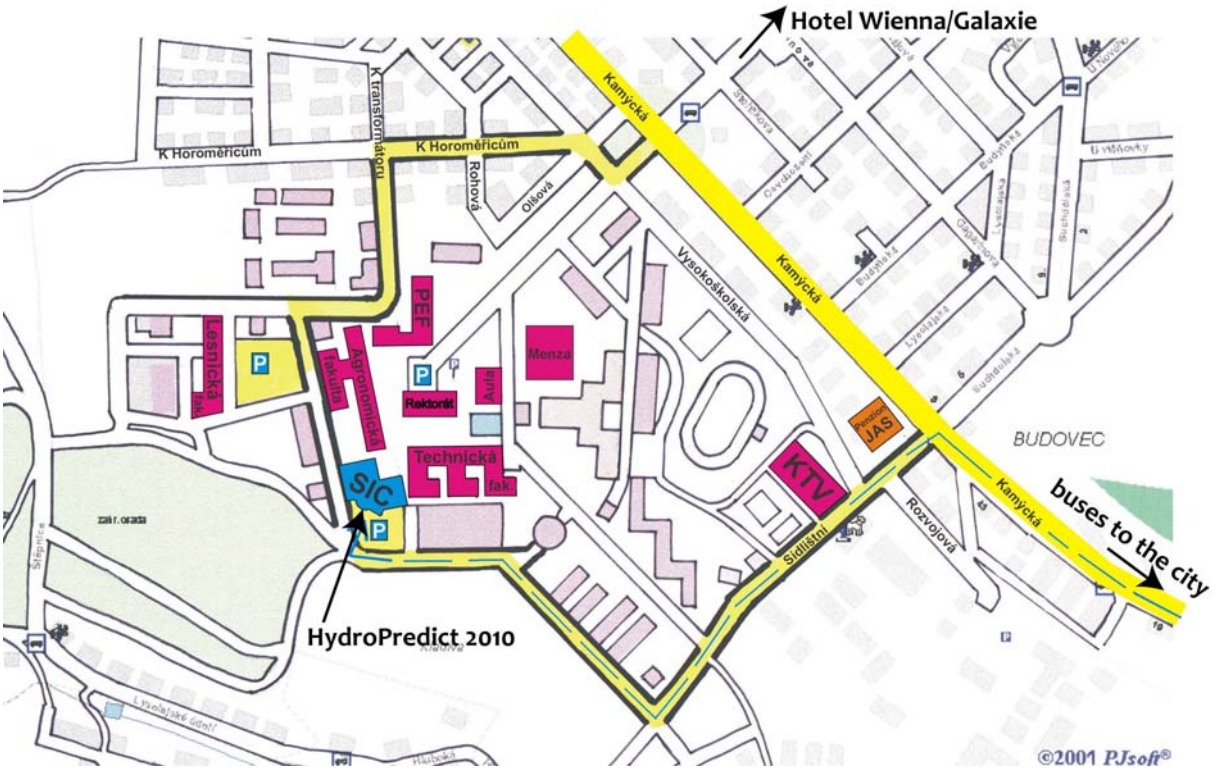
The convening organizations are:

- Faculty of Science, Charles University, Prague, Czech Republic;
- International Association of Hydrological Sciences (IAHS);
- Universität für Bodenkultur Wien (BOKU), University of Natural Resources and Applied Life Sciences; Institute of Water Management, Hydrology and Hydraulic Engineering, Vienna, Austria;
- Czech University of Life Sciences Prague (Česká zemědělská univerzita v Praze, ČZU), Prague;
- T.G. Masaryk Water Research Institute (VÚV), Prague, Czech Republic.

Overview map of Suchdol

Map of university campus, SIC = Conference Venue

Map of arrival to parking places at the university congress centre SIC, Praha 6, Suchdol



HydroPredict 2010 Conference Programme

Overview: Monday-Thursday, 20 - 23 September 2010

Sun 19 Sep		16.00-20.00 Registration	
			18.00-20.00 Welcome, Get Together

Mon 20 Sep	8.30 - 9.00	9.00 - 10.00	10.00 - 10.30	10.30 - 12.30	12.30 - 14.00	14.00 - 15.30	15.30 - 16.00	16.00 - 17.15	17.15 - 18.30
	Open Ing	Intro-duction	🍽	Session A1	🍽	Session A1	🍽	Session A2	Plenary visit to posters Beer-wine-soft drinks-snacks
	Posters on display for poster sessions block 1								

Tue 21 Sep	8.30-10.00	10.00 - 10.30	10.30 - 12.30	12.30 - 14.00	14.00 - 15.30	15.30 - 16.00	16.00 - 16.30		18.00 - 22.30
	Session A2	🍽	Session A2	🍽	Session C	🍽	Session C		Conference Dinner
	Poster session block 1: continuation till the afternoon coffee break								

Wed 22 Sep	8.30-10.00	10.00 - 10.30	10.30 - 12.30	12.30 - 14.00	14.00 - 15.30	15.30 - 16.00	16.00 - 17.15	17.15 - 18.30
	Session C	🍽	Session D	🍽	Session D	🍽	Session D	Plenary visit to posters Beer-wine-soft drinks-snacks
	Posters on display for poster sessions block 2							

Thu 23 Sep	8.30-10.00	10.00 - 10.30	10.30 - 12.30	12.30 - 14.00	14.00 - 15.00	15.00 - 15.30
	Session SS	🍽	Session SS/CWM	🍽	Session CWM	**Clo-sure**
	Poster session block 2: continuation					

Regular oral presentations: 15 minutes (suggested 11 + 4 min discussion/questions)

Invited oral presentations: 30 minutes (suggested 25 + 5 min discussion/questions)

🍽 is coffee break 🍽 is lunch

The following sessions are distinguished:

Session A1 (oral and poster)
How can we identify and quantify water-related changes due to direct human interventions

Session A2 (oral and poster)
How can we identify and quantify water-related changes due to climate change

Session C (oral and poster)
How can we quantify/ prognose/ predict changes in water-related hazards

Session D (oral and poster)
How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters

Session CWM (oral only)
Challenges for Water Management in Stressed River Basins

Session SS (oral only)
Special Session on Uncertainty in Predicting the Impacts of Catchment Change and its Implications for Decision Making

Session T&M(posters only)
Tools and methodologies to model (predict behaviour of) hydrological subsystems

Poster Session Block 1 (max. 52 posters)

Monday-Tuesday, 20-21 September, 17.15-18.30

Posters to be installed during the morning of Monday, September 20.

Session A1: How can we identify and quantify water-related changes due to direct human interventions

Session C: How can we quantify/ prognose/ predict changes in water-related hazards

Poster Session Block 2 (max. 53 posters)

Wednesday-Thursday, 22-23 September, 17.15-18.30

Posters to be installed during the morning of Wednesday, September 22.

Session A2: How can we identify and quantify water-related changes due to climate change

Session D: How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters

Session T&M: Tools and methodologies to model (predict behaviour of) hydrological subsystems

Conference Programme

Sunday, September 19

Registration at the venue (Czech University of Life Sciences Prague, Česká zemědělská univerzita, SIC – Studijní a informační centrum, Praha 6 - Suchdol), **16.00-20.00 hours**

Welcome, Icebreaker, in the Registration area, 18.00-20.00 hours

Note that is required to register before Welcome, Icebreaker.

Monday, September 20

Registration, from 7.30 hours

Authors of the entire day are requested to hand in their USB memory stick or CD-ROM with oral presentation at the registration desk before 8.30 hours, or preferably Sunday afternoon. Thank you!

Only plenary presentations during entire conference

Opening of the Conference

8.30-9.00 hours Welcome on behalf of the Organizers and IAHS (Dr Pierre Hubert, IAHS Secretary General, France)

Introduction to conference Scope and Objectives

Chairperson: Andreas Schumann (Germany)

9.00-9.30 J.Ch.Refsgaard, Denmark (**invited**) (abstract #78)
A methodology to distinguish between human interventions and impacts caused by climate change

9.30-10.00 H.-P.Nachtnebel, Austria (**invited**) (abstract #358)
Discriminating among direct human interventions and climate change impacts on the water cycle

10.00-10.30 Coffee break

Session A1, How can we identify and quantify water-related changes due to direct human interventions

Chairpersons: Andreas Schumann (Germany), Hans-Peter Nachtnebel (Austria), **chairs 1**

10.30-10.45 R.Pohl (abstract #25)
History and future at the Dresden Elbe gauge. Data mining and results

10.45-11.00 V.Hrissanthou, M.Galani (abstract #50)
Comparative computation of soil erosion and reservoir sedimentation on a monthly and on a daily time basis

11.00-11.15 P.Kovář, D.Vaššová (abstract #77)
Modelling surface runoff to mitigate a harmful impact of soil erosion

11.15-11.30 W.Gossel, P.Wycisk (abstract #107)
Importance and effects of model couplings in hydrogeology

11.30-11.45 W.H.Renwick, M.T.Rakovan (abstract #135)
Impacts of channel incision on peak flows and stream processes

11.45-12.00 E.Querner (abstract #142)
Modelling human interventions in the Rhine basin using the SIMGRO model

12.00-12.15 E.M.Adar (abstract #244)
The anthropogenic impact of cross-borders water resources development in the Jordan Basin on the hydrology and water quality of the Jordan River

←→ *15 minutes time, free to use by session chairs*

12.30-14.00 Lunch

Session A1, How can we identify and quantify water-related changes due to direct human interventions

Chairpersons: Jens Christian Refsgaard (Denmark), Pavel Kovář (Czech Republic), **chairs 2**

14.00-14.15 B.G.Tyrna, V.Hochschild (abstract #225)
Urban flash flood modelling based on soil sealing information derived from high resolution satellite data

14.15-14.30 E.Gelati, H.Madsen, D.Rosbjerg (abstract #253)
Multi-reservoir optimisation using El Niño information. Case study of Daule Peripa – Baba (Ecuador)

14.30-14.45 E.Kubin (abstract #296)
Long term consequences of intensive biomass harvesting to nitrogen cycle and groundwater quality in boreal forest environment

14.45-15.00 J.Muráti, G.Tóth (abstract #304)
Prediction of the interferences of urbanization (including geothermal utilizations) and surface water-groundwater interactions on a large alluvial aquifer, Budapest capital city, Hungary

15.00-15.15 Y.Jia, X.Ding, H.Wang, Y.Qiu, Z.Zhou (abstract #28)
Detection and attribution of climate change and human activities impacts on water resources in the Haihe River Basin of China

←→ *15 minutes time, free to use by session chairs*

15.30-16.00 Coffee break

Session A2, How can we identify and quantify water-related changes due to climate change

Chairpersons: Jens Christian Refsgaard (Denmark), Pavel Kovář (Czech Republic), **chairs 2**

16.00-16.30 H.Madsen, M.A.Sunyer, K.Yamagata (**invited**) (abstract #224)
Comparison of statistical downscaling procedures for climate change impact assessment of water resources

16.30-16.45 J.Chen, F.Brissette, R.Leconte (abstract #89)
Coupling statistical and dynamical methods for spatial downscaling of precipitation

16.45-17.00 A.Rimmer, R.Samuels, A.Givati, P.Alpert (abstract #31)
Using high resolution climate model to evaluate future water and solutes budgets in the Sea of Galilee

16.00-17.15 B.Yilmaz, M.Dogan, A.Ulke, Y.O.Aksoy (abstract #86)
Assessment of climate change impacts in the Gediz River Basin, Turkey: application of the WEAP model

17.15-18.30 Poster Session Block 1, plenary visit to posters, Beer-wine-soft drinks-snacks

Posters to be installed during the morning of Monday, September 20.

Session A1: How can we identify and quantify water-related changes due to direct human interventions

Session C: How can we quantify/ prognose/ predict changes in water-related hazards

Tuesday, September 21

Registration Desk open from 8.00 hours

Authors of the entire day are requested to hand in their USB memory stick or CD-ROM with oral presentation at the registration desk during Monday. Thank you!

Session A2, How can we identify and quantify water-related changes due to climate change

Chairpersons: Wolfgang Kron (Germany), Henrik Madsen (Denmark), **chairs 3**

8.30-8.45 A.St-Hilaire, A.Daigle, N.Thiémonge, L.Roy (abstract #21)
Potential variations in low flow hydrological indices associated with climate change
8.45-9.00 H.Koch, M.Kaltoffen, S.Kaden, U.Grunewald (abstract #101)
Effects of global change in the Czech Part of the River Elbe Basin
9.00-9.15 M.Muerth, W.Mauser, C.Heinzeller (abstract #126)
Impact of potential climate change on plant available soil water and percolation in the Upper Danube basin
9.15-9.30 F.Koch, H.Bach, W.Mauser (abstract #128)
Climate Change effects on hydropower plants in the Upper Danube watershed
9.30-9.45 D.Waldmann, W.Mauser (abstract #175)
Large-scale modelling of soil erosion by water and potential global change impacts in the Upper Danube basin
←→ *15 minutes time, free to use by session chairs*

10.00-10.30 Coffee break

Session A2, How can we identify and quantify water-related changes due to climate change

Chairpersons: Wolfgang Kron (Germany), Henrik Madsen (Denmark), **chairs 3**

10.30-11.00 J.Ganoulis (**invited**) (abstract #309)
Valuing environmental impacts from climate change and hydroelectrical infrastructure: A case study from Greece
11.00-11.15 J.Dams, E.Salvadore, O.Batelaan (abstract #176)
Predicting impact of climate change on groundwater dependent ecosystems
11.15-11.30 J.Daňhelka, T.Vlasák, J.Krejčí (abstract #177)
Climate change impact on floods in the Czech Republic
11.30-11.45 K.Hlavčová, R.Výleta, J.Szolgay, S.Kohnová, Z.Macurová, P.Šurek (abstract #270)
Modelling changes in runoff regime in Slovakia using high resolution climate scenarios
11.45-12.00 D.Jayasuriya, N.Plummer, J.Elliott (abstract #325)
Developing water forecasting services to manage water scarcity and variability
12.00-12.15 P.Stanzel, H.-P.Nachtnebel, H.Formayer (abstract #350)
Applying regional climate model results in water balance simulations: Spatial and seasonal patterns of hydrological change in Austria
←→ *15 minutes time, free to use by session chairs*

12.30-14.00 Lunch

Session C, How can we quantify/ prognose/ predict changes in water-related hazards

Chairpersons: Janos Bogardi (Germany), Jacques Ganoulis (Greece), **chairs 4**

14.00-14.30 K.Takara, K.Kobayashi **(invited)** (abstract #9)
Non-Parametric Frequency Analysis of Hydrological Extreme Events

14.30-14.45 A.N.Menéndez, N.D.Badano (abstract #29) Integrated hydrological modelling to asses flood and drought risk under climate and land use change

14.45-15.00 V.Ouellet, J.Morin, A.Saint-Hilaire, M.Mingelbier, Y.Secrétan (abstract #46)
Temperature duration frequency analysis on the St. Lawrence River – A tool to quantifying adverse conditions during the 2001 massive fish kill

15.00-15.15 L.Alfieri, J.T.Del Pozzo (abstract #76)
Hydrological applications of probabilistic ensemble forecasts for flash flood early detection

15.15-15.30 R.Rudari, F.Delogu, G.Boni, L.Ferraris, F.Siccardi, C.Versace, G,Squicciarino, E.Angliati, S.Dellepiane, L.Pulvirenti, N.Pierdicca, L.Candela (abstract #294)
Flood propagation and damage evaluation integrating hydraulic modeling and satellite observation

15.30-16.00 Coffee break

Session C, How can we quantify/ prognose/ predict changes in water-related hazards

Chairpersons: Janos Bogardi (Germany), Jacques Ganoulis (Greece)**, chairs 4**

16.00-16.15 U.Haberlandt, A.Belli, M.Wallner (abstract #91)
Rainfall and runoff trends and their relation – a case study in Lower Saxony

16.15-16.30 I.Yucel, F.Keskin (abstract #123)
Evaluation of flash flood events by using a regional atmospheric model and remotely-sensed precipitation estimates

18.00-22.30 Conference Dinner

(for details see the next page)

18.00-22.30 Conference Dinner

Times important for Conference Dinner:

18:00 Buses leave from Hotel Wienna/Galaxie (within walking distance from conference venue)
18:10 Buses stop at Pension JAS (within walking distance from conference venue)
18:20 Buses arrive at the Hotel Crowne Plaza

18:20 Those who do not make use of bus transfer from Hotel Wienna/Galaxie or Pension JAS should be present at the tram stop at the Hotel Crowne Plaza **at 18:20, at the latest**

18:30 Trams leave from the Hotel Crowne Plaza, to the Strahov Monastery

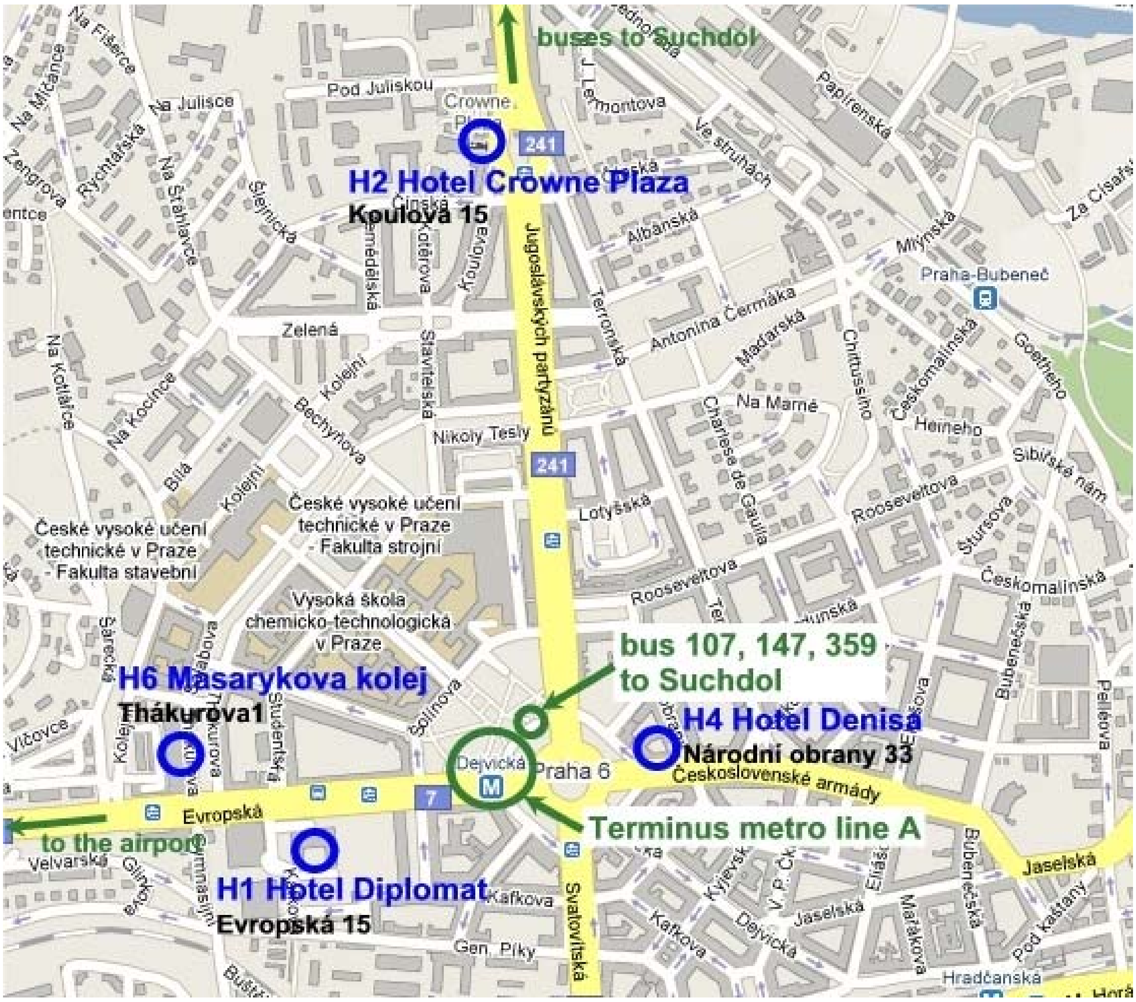
For the location of Hotel Crowne Plaza see the map below.

22:30 Buses leave from Strahov Monastery, back to hotels:

Hotel Denisa, Masarykova kolej / Student dormitory,

Hotel Crowne Plaza,

Suchdol: Pension JAS, Hotel Wienna/Galaxie



Wednesday, September 22

Registration Desk open from 8.00 hours

Authors of the entire day are requested to hand in their USB memory stick or CD-ROM with oral presentation at the registration desk during Tuesday. Thank you!

Session C, How can we quantify/ prognose/ predict changes in water-related hazards
Chairpersons: Slobodan Simonovic (Canada), Stefan Uhlenbrook (The Netherlands), **chairs 5**

8.30-8.45 W.Mauser, S.Stoeber (abstract #144)
Climate change and extreme events: scenarios of changing flood frequencies in the Upper Danube River basin
8.45-9.00 K.Tanaka, J.Nakata, T.Kojiri (abstract #194)
Development of bias detection/correction system for seven surface meteorological elements
9.00-9.30 S.Uhlenbrook **(invited)** (abstract #284)
Predicting the impact of change - The need for a better hydrological process understanding through innovative experimental and modeling approaches
9.30-10.00 A.Bronstert **(invited)** (abstract #291)
Comparative simulation of the effects of land use change, river training, and altered climate on floods of the Rhine

10.00-10.30 Coffee break

Session D, How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters
Chairpersons: Slobodan Simonovic (Canada), Stefan Uhlenbrook (The Netherlands), **chairs 5**

10.30-11.00 W.Kron **(invited)** (abstract #82)
Floods: From loss-data collection to risk control
11.00-11.15 H.Sommer, F.Jakobs, Z.Jin, H.Sieker (abstract #125)
Flood Prediction in urban drainage based on rainfall prediction
11.15-11.30 A.H.Te Linde, H.De Moel, P.Bubeck (abstract #127)
Future flood risk in the Rhine basin
11.30-11.45 M.Ferri, D.Norbiato, M.Monego, A.Galli, S.Gualdi, E.Bucchignani, F.Baruffi (abstract #171)
Impact of climate change on hydrological regimes and water resources in TRUST (LIFE + 2007) project
11.45-12.00 M.Murakami (abstract #183)
Water security of SAMEURA dam project under the Influence of global climatic changes in the western part of Japan
12.00-12.15 R.Schinke, K.Gruhler, J.Hennersdorf, M.Neubert (abstract #289)
Calculation of building damage due to high groundwater levels
12.15-12.30 J.Velstra, J.Oosterwijk, J.Groen (abstract #286)
Impact of climate change on salinization during dry periods in Dutch polders and necessity of adaptation strategies

12.30-14.00 Lunch

Session D, How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters
Chairpersons: Axel Bronstert (Germany), Kaoru Takara (Japan), **chairs 6**

14.00-14.30 S.P.Simonovic **(invited)** (abstract #150)
Methodology for assessment of climate change risk to municipal infrastructure
14.30-15.00 A.H.Schumann, D.Nijssen, B.Klein, M.Pahlow **(invited)** (abstract #246)
Flood scenarios, imprecise probabilities and multi-criteria decision making in polder planning
15.00-15.15 M.J.P.Mens, K.M.De Bruijn, F.Klijn (abstract #207)
Analyzing the robustness of flood risk systems to climate variability
15.15-15.30 S.Busch (abstract #219)
Simulating heavy rain damage in an insurance context

15.30-16.00 Coffee break

Session D, How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters
Chairpersons: Axel Bronstert (Germany), Kaoru Takara (Japan), **chairs 6**

16.00-16.30 M.Borga, P.Tarolli, D.Zoccatelli, F.Marra **(invited)** (abstract #312)
Characterisation of selected extreme flash floods in Europe and of the triggering storm events: implications for monitoring strategies and mitigation policies
16.30-17.00 M.Damm, A.Fekete, J.J.Bogardi **(invited)** (abstract #305)
Intersectoral vulnerability indices as tools for framing risk mitigation measures and spatial planning
17.00-17.15 K.Kobayashi, K.Takara, E.Nakakita (abstract #259)
Climate change impacts on the flood hazard and economic risk in a Japanese catchment using GCM precipitations under the A1B Scenario

17.15-18.30 Poster Session Block 2, plenary visit to posters, Beer-wine-soft drinks-snacks

Posters to be installed during the morning of Wednesday, September 22.

Session A2: How can we identify and quantify water-related changes due to climate change

Session D: How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters

Session T&M: Tools and methodologies to model (predict behaviour of) hydrological subsystems

Thursday, September 23

Registration Desk open from 8.00 hours

Authors of the entire day are requested to hand in their USB memory stick or CD-ROM with oral presentation at the registration desk during Wednesday. Thank you!

Session SS, Uncertainty in Predicting the Impacts of Catchment Change and its Implications for Decision Making

Chairpersons: Keith Beven (UK), Patrick Willems (Belgium), **chairs 7**

8.30-9.00 P.Willems, J.Staes, P.Meire **(invited)** (abstract #61)
Impact of climate change on river hydrology and ecology: case study for interdisciplinary policy oriented research

9.00- 9.30 K.Beven, R.Alcock **(invited)** (abstract #97)
Guidelines for good practice in predicting the future: The Catchment Change Network

9.30-9.45 T.Krueger, A.Inman, K.Hiscock, L.E.D.Smith (abstract #189)
Model limitations and prediction uncertainty in the context of analytic-deliberative catchment management: acceptance by stakeholders and their role in improving model predictions

9.45-10.00 M.J.Polo, M.A.Losada (abstract #222)
Uncertainty assessment for long-term forecasting of extreme values in streamflows due to catchment changes in a Mediterranean mountainous watershed in Southern Spain

10.00-10.30 Coffee break

Session SS, Uncertainty in Predicting the Impacts of Catchment Change and its Implications for Decision Making

Chairpersons: Keith Beven (UK), Patrick Willems (Belgium), **chairs 7**

10.30-10.45 S.Bastola, C.Murphy, J.Sweeney (abstract #293)
Evaluation of the role of hydrological modelling uncertainties in climate change impact assessments: a case study including basins located in Ireland

10.45-11.00 J.Freer, F.Wetterhall, H.He, H.Cloke (abstract #327)
Climate change ensembles driving modelling cascades with uncertainty analysis to quantify the resultant impacts on flood risk. Is this currently feasible?

11.00-11.15 L.Speight, J.Hall, C.Kilsby, P.Kershaw (abstract #328)
Adding value to catastrophe models: A multi-site approach to risk assessment for the insurance industry

11.15-11.30 W.Buytaert, K.Beven (abstract #329)
Regionalisation as a learning process

Session CWM, Challenges for Water Management in Stressed River Basins

Chairpersons: Chunmiao Zheng (USA), Hans-Peter Nachtnebel (Austria), **chairs 8**

11.30-12.00 Ch.Zheng, G.Cao, J.Liu **(invited)** (abstract #319)
Consequences of human interventions on groundwater resources: Can China cope with its water crisis?

12.00-12.15 H.Mala Jetmarova, A.Barton, A.Bagirov, P.McRae-Williams (abstract #55)
Adaptation to water shortage in the Western Victoria, Australia due to climate change

12.15-12.30 D.A.Post (abstract #165)
Climate and landuse change impacts on water availability: a case study from Tasmania, Australia

12.30-14.00 Lunch

Session CWM, Challenges for Water Management in Stressed River Basins
Chairpersons: Chunmiao Zheng (USA), Hans-Peter Nachtnebel (Austria), **chairs 8**

14.00-14.30 H.Xiao, G.Cheng, C.Li **(invited)** (abstract #318)
Understanding changes in ecohydrological processes caused by human interventions for integrated basin-scale water management: Heihe River Basin, northwest China
14.30-14.45 C.Calligaris, F.Cucchi, A.Deana, F.Treu, E.Zavagno, L.Zini, D.Iervolino, F.Lippi (abstract #185)
Water hydrogeological balance in the FVG Plain
14.45-15.00 R.Ludwig, M.Muerth, S.Berger, F.Ferber, J.Schmid, W.Mauser (abstract #206)
Adapting regional watershed management to climate change - The Quebec-Bavarian collaboration project Q-BIC3

15.00-15.30 Closure of the Conference

Poster sessions

Session A1, How can we identify and quantify water-related changes due to direct human interventions (max. 24 posters)

#20 Ľ.Šolín, J.Feranec, J.Nováček: Land cover changes in small basins of and their effects on frequency of flood situations in Slovakia in the period 1990-2006

#24 J.C.de Araujo, I.E.L.Neto, M.C.Wiegand,V.T.C.Malveira: Impact of a dense reservoir network on water availability in the semiarid north-eastern Brazil

#95 R.Barthel: An indicator approach to detecting climate change impacts on groundwater systems

#96 T.A.Burenina, E.V.Fedotova: Dynamic water balance of forest areas due to human-caused vegetation cover changes

#98 R.Barthel, S.Janisch,A.Ernst, Rhennicker, R.Ziller, W.Mauser: A multi-actor modelling framework for simulating actor responses to global change

#116 M.Słowik: Application of GPR method to retrace natural course of lowland river influenced by anthropogenic intervention

#119 M.Loinaz, M.Paravidino, M.Butts, P.Bauer-Gottwein Catchment-scale integrated eco-hydrological modeling

#124 R.M.Pieras, L.Pouget, I.Escaler, D.Sempere: Water Change. A tool for water resources modelling in Global Change scenarios

#130 Sudarmandji, S.R.Hardoyo, R-Harini: Public participation on groundwater conservation in the Seropan catchment on the Gunungkidul karst area, Yogyakarta

#155 D.Vrebos, J.Staes, P.Meire: The effects of sewage systems on upstream area allocation within a catchment

#164 A.Drocourt, D.Post, J.Bennett, F,Ling: Impacts of climate change and forest age on runoff from Tasmanian catchments

#168 J.C.Q.Basagoitia: Analysis of the water resources reduction as the impact arisen of deforestation processes in the north and east of El Salvador, Central America

#179 O.Gorelits, I.Zemlianov, V.Kryjov: Lower Volga water runoff long-term variability and flooding regime

#199 H.Ceranski, S.Chmieleski, M.Geisler, H.Mansel: Estimation of the water budget deficit due to mining activities in Central Germany

#208 K.Gudulas, K.Voudouris, G.Soulios, G.Dimopoulos: Development of the hydrologic balance of a basin using the real evapotranspiration

#213 A.Claude, I.Zin, B.Hingray, C.Obled, A.Gautheron, C.Perret: Towards an operational system of flood forecasting taking into account hydro-power plants operation

#217 F.Bacchini, N.Calda, R.Valloni: Recharge regime and decadal groundwater levels variability in the Taro River alluvial fan (Italy)

#277 L.O.Olang, J.Fürst: Effects of land cover change on the hydrological response of the Nyando River Basin during storm events: a physically based lumped approach

#279 Y.Panagopoulos, C.Makropoulos, M.Mimikou: Prediction of water quality improvements due to man-made alterations in agricultural management practices

#285 U.Chiocchini, F.Biondi, C.Bicocchi, F.Manna, L.Portoghesi, F.Castaldi: Soils and sustainable forest management in area sensible to desertification: the case of north - western Latium, Central Italy

#297 G.N.Wijesekara, A.Gupta, C.Valeo, D.J.Marceau:Integrating a land use cellular automata and a hydrological model to investigate the impact of land-use changes on the hydrological processes in the Elbow River watershed in southern Alberta, Canada

#299 U.Sunday Tim: Improving Information for Water-related Management and Policy Decisions – The roles and uses of simulation modeling

#338 F.Ø.Thordarson, H.Madsen: Predictions for groundwater well field using stochastic modeling

#357 M.A.Mancuso: Using Geographic Information System (GIS) and Groundwater models on a basin scale to predict hydrogeological impact of dam reservoirs. How good are the predictions?

Session A2, How can we identify and quantify water-related changes due to climate change (max. 28 posters)

#38 G.Ermakova: Potential changes in run off on the territory of East European and West Siberian Plains by the middle of XXI century

#69 L.Razowska-Jaworek, A.Chmura: Impact of flooded gavel pit on groundwater table and resources of the Quaternary- Neogene aquifer near Rybnik in the southern Poland

#100 G.Hillebrand, T.Pohlert, I.Klassen, V.Bretung, S.Vollmer: Impact of projected climate change on transport of cohesive sediments and particle-bound contaminants in impounded rivers

#103 C.Criegee, S.Glatzel, A.Bauwe, B.Lennartz, T.Scharnweber, C.Schröder, M.Manthey, M.Wilmking: Past climate extremes and corresponding tree growth in Northeastern Germany: Implications for future climate change

#104 S.Nemeckova, V.Sipek: Simulation of the hydrological cycle using physically based hydrological model SWIM (case study on watersheds of different natural conditions)

#118 T.Wixwat: Groundwater Recharge in Lower Saxony – An Aspect of Climate Change Research

#132 C.L.Wong, R.Venneker: Analysis and modelling of runoff from two distinct river basins in Peninsular Malaysia

#148 X.Wang, Z.Zhou,Y.Jia: Study on Impacts of Climate Change on Water Resources in Songhua River Basin

#158 J.Yan, S.Chen: The method for transporting the sediment effectively in the lower Yellow river

#166 Y.Sato, Y.Michihiro, Y.Suzuki, T.Kojiri: Changes in long-term water balance of major river basin in Japan due to climate change

#174 D.Bagla, D.Sahil, G.Gullu: Precipitation variability in Turkey during the period 1970-2008

#180 I.Zemlianov, O.Gorelits: Modern development of Terek delta sea edge (Caspian region)

#191 J.R.Manson, B.O.L.Demars, S.G.Wallis, V.V.Mytnik: A combined computational and experimental approach to quantifying habitat complexity in Scottish upland and lowland streams

#212 Y.T.Hong, G.Zemansky, J.Thomas: Modelling the Impact of Drought and Abstraction on Streamflow and Groundwater Levels in a Coastal Aquifer

#230 J.Valters, I.Grinfelde, E.Pundurs: Changes in groundwater levels at agricultural fields caused by climate changes

#231 M.Piniewski, T.Okruszko, I.Barlund, F.Voss, Z.Kundzewicz: Effect of model scale on the assessment of climate change impact on river flow – a case study for the Narew (Poland)

#249 D.Panagoulia: Nonlinear dynamics theory and recurrence analysis of dynamical systems in extreme precipitation under climate change conditions

#257 A.Khastagir, N.Jayasuriya, M.A.Bhuiyan: Increased frequency of bushfires in Melbourne's water supply catchments from climate change and its impact on water yield

#265 R.Acar, S.Senocak: Precipitation Trends For Western Turkey in Associated with North Atlantic Oscillation (Nao) Index

#308 Z.Y.Marchetti, J.J.Carrillo-Rivera, G.Hernandez-García, P.G.y Aceñolaza: Relationships among vegetation, sediments, surface water and groundwater in the floodplain of the Parana River, Argentina

#316 J.Bennett, M.Grosse,F.Ling, S.Corney, G.Holz, C.White, B.Graham, D.Post, N.Bindoff: Climate Change Impacts on Runoff in Tasmania, Australia, assessed from Dynamically Downscaled Global Climate Model projections

#317 R.Froend, B.Sommer, A.Paton, B.Huntley: Spatial modelling of vegetation ecohydrological states: Application in ecological risk assessment for water resource planning

#320 R.Wysocki: Rapid Assessment of Hydrologic Trends and Ecological Base Flows in Various Watersheds in Canada

#336 P.Lopez, G.Casassa, F.Delclaux: Future of the water resources of a high glacierised basin located in Patagonia, Chile

#342 A.Celligoi, U.Duarte: Determination of the regulator reserve of the Caiuá aquifer using recession curves of the Antas river, Brazil

#353 B.Soden: Atmospheric Warming and the Amplification of Precipitation Extremes

#356 B.Uhlmann, F.Jordan, M.Beniston: Impacts of climate change on hydropower potential

#360 S.Bajocco, A.De Angelis, L.Perini, L.Salvati: Climate aridity and land use changes: a large scale analysis

Session C, How can we quantify/ prognose/ predict changes in water-related hazards (max. 28 posters)

#32 A.Rimmer, G.Gal, T.Ofer, Y.Lechinsky: Long-term variations of thermal structure in a warm lake

#57 M.Tavakoli, F.De Smedt: Application of a distributed hydrological model (WetSpa) for simulation of soil moisture content

#65 L.Ballarin, C.Brun, R.Semeraro, F.Forti: Pollution impact of landfill leachate on agriculture and drinking water supply: development of an environmental isotope approach together at tracing test

#75 T.Kishii: Prediction of flood for extraordinary severe rainfall in the small river

#93 B.Grillo, C.Braitenberg, I.Nagy, D.Tenze, L.Zini: The study of carstic aquifers by geodetic measurements in Friuli Venezia Giulia (North East Italy) for a water sustainable management

#102 M.Maradjieva: Potential destruction of a dam causal by dam break wave in urban areas

#113 E.Radu, M.Minciuna, D.Gaitanaru, A.Pandele, R.Gogu, C.Radu: Climate changes in relation to phreatic aquifers vulnerability assessment. A study case on Bega - Timis region, Romania.

#131 T.Roggenkamp, J.Herget, A.Niessen: Historic floods in the city of Prague - A reconstruction of peak discharges

#133 S.G.Wallis, J.R.Manson: A similarity inspired enhancement for estimating dispersion coefficients in rivers

#139 M.Nakatsugawa, K.Kawamura: Possible Effects of Climate Change on Hydrologic Processes in a Snowy Region of Japan

#151 A.Dussaillant, G.Benito, P.Carling, W.Buytaert, C.Meier, A.Siviglia, F.Espinoza: Repeated glacial-lake outburst floods in Patagonia, Chile: Numerical approximations with increasingly complex models

#153 R.Stollberg, W.Gossel, H.Weiß, P.Wycisk:Source and pathway identification of groundwater contaminants using a forensic modelling approach

#163 G.Cardoso-Landa: GCL model for predicting mud flows and water-related natural hazards

#173 Y.Suzuki, Y.Sato,Y.Michihiro: Development of an impact assessment model of water environment near river mouse by using coupled river discharge and ocean circulation model

#182 CH.S.Oh, J.M.Kim: Three-dimensional numerical simulation of fresh water injection and salt water extraction schemes to mitigate seawater intrusion due to urbanization in a coastal aquifer system, Busan, Korea

#186 J.H.Kihm, J.M.Kim: Numerical simulation of impacts of hydrogeological properties of storage formation on efficiency and safety of geologic storage of carbon dioxide

#196 G.Porto, C.Arduini, E.Carraro: Geostatistics study for the evaluation of groundwater nitrate contamination in the province of Milano

#197 S.A.de Souza, L.N.R.Xavier: Improving Weekly Streamflow Time Series Forecasts of the Brazilian Energy Power System with the Current Hydrologic State of the River Basin

#220 J.Nakata, K.Tanaka, T.Kojiri, I.Tamagawa, T.Watanabe, T.Satomura: Examination and estimation of heat exchange and effect of climate change on a cool temperate deciduous broad leaved forest using multi-layered canopy model

#223 J.Herreo, A.Millares, I.Moreno, A.Aguilar, M.Eguén, M.J.Polo: Quantifying human-induced effects over hydrology in Mediterranean catchments through a physically based model

#227 S.Kim, E.Nakakita, Y.Tachikawa, M.Shiiba: Understanding the Characteristics of AGCM20 Precipitation Output Considering Its Dependence on Topography

#273 G.Coccia, E.Todini: Predictive Uncertainty Estimation in Real Time Flood Forecasting Using a Bayesian Processor

#274 S.Kohnová, K.Hlavčová, J.Szolgay, M.Danko: Simulating scenarios of extreme floods for flood protection and control

#275 K.Hlavčová, O.Horvát, S.Kohnová, J.Szolgay, R.Remiášová: Distributed modelling of flash floods in ungauged basins

#276 J.Szolgay, M.Danáčová, P.Šurek: Multilinear flood routing model for alluvial rivers

#288 R.Drobot, N.Sirbu, R.Trandafir, D.Ciuiu: Hydrologic boundary conditions using copulas for flood hazard maps delineation

#331 V.Konovalov: Spatial Distribution of Climate Factors in Average and Extreme Years

#355 S.A.Arévalo, J.Schmidt: Applying the EROSION 3D Model to predict the impact of muddy floods in residential areas

Session D, How can we adapt to / mitigate water-related hazards; resilient and robust ways to adapt to water-related disasters (max. 10 posters)

#73 A.A.Al-Modayan, A.M.Subyani: Flood Hazards Analysis of Jeddah Wadis,

#115 T.Dostal,V.David, P.Kafka, J.Krasa: Rainfall-runoff study of Khoshi catchment basin (Afghanistan)

#138 T.Usutani, M.Nakatsugawa: Improvement of the Flood Control of a Dam in a Snowy Region Using Cumulative Rainfall Forecast

#159 J.Yan, S.Chen: The mechanism for discharging the flood dafely in the lower Yellow River

#195 R.Lähne, W.Gossel, P.Wycisk: A new Approach for Depth to Groundwater Calculation (Hydro-FaBer) using Hydrographical Information

#201 J.Krois, A.Schulte, E.V.Pajares, C.Cerdán: The conservation of water and soil resources in the Chetillano and Ronquillo basins in the Northern Sierra of Peru

#216 A.J.Soto: Samala watershed actual situation overview: work towards a less risky land use in a Guatemalan perspective

#238 S.L.Toch: Too Much or Too Little: A Catalyst for Change

#340 D.Stephenson: Climatic change effects in arid countries

#352 E.Lang, U.Stary, G.Priesch: Natural Hazards in the Light of Climate Change – Demonstration of Complex Cause-Effect Relationships by the Example of the Mass Movement Berchtoldhang

Session T&M, Tools and methodologies to model (predict behaviour of) hydrological systems (max. 15 posters)

#22 A.St.-Hilaire, N.Guillemette, A.Daigle, T.B.M.J.Ourda: Geostatistical water temperature modeling

#44 U.Chiocchini, F.Casaldi, M.Barbieri, V.Eulilli: A new hydrogeological model to explain the deep circulation, the thermal springs and their recharge area in Cimini Mountains - Viterbo zone, Central Italy

#71 J.C.-C.Lu, M.H.Chuang, H.D.Yeh, C.S.Tsai: An analytical solution for land subsidence in clayey layer due to pumping

#167 L.Castro, B.Fernadez, M.Miranda: Analysis of the spatiotemporal heterogeneity of Modis Satellite data for hydrologic forecasting

#181 J.Říha, D.Rosická, J.Šembera: A real-world problem simulation using fractured porous medium model

#200 M.Cisty: Soil water content interpolation by hybrid harmony search - support vector machines model

#202 I.Škarydová, M.Hokr, J.Havlíček: Modelling of tunnel inflow with coupled 3D groundwater and 2D surface flow concept

#248 M.Suchár, M.Čistý: Alternative methods for determining water content in soil

#262 V.Žabka, J.Šembera: Tranport program and simulation of tranport column experiments

#263 I.Bruský, J.Šembera: Model of mineralisation of water in granite

#292 M.L.Deangelis: The subsurface flow in a maize cropped field in Northern Italy: monitoring and modelling.

#337 Y.Jia, C.Niu, S.Du: Groundwater Evolution under Artificial Forcing

#347 A.M.Amer: Prediction of hydraulic conductivity and soil hydrological parameters in cultivated and uncultivated soils

#348 R.Pastoors, A.Veldhuizen: Iterative coupling for modelling of transient saturated and unsaturated groundwater flow by Modflow and SWAP

#359 L.Salvati, S.Bajocco, A.De Angelis, M.Munafò, L.Perini: How to estimate soil sealing at country scale: a methodological proposal