## **PROGRAMME GROUP SCHEDULE**

## HS – HYDROLOGICAL SCIENCES

## O: Oral Presentation (Lecture Room) / P: Poster Presentation (Poster Hall) TB: 1: 8:30–10:00 / 2: 10:30–12:00 / 3: 13:30–15:00 / 4: 15:30–17:00 / 5: 17:30–19:00

Session	Title	TB	MO	TU	WE	TH	FR
HS1	Strategies to community building in hydrology	1		O (28 (B))			
	(invited papers only) (co-listed in US)	2 3		O (28 (B)) O (28 (B))			
	(	4		O (28 (B))			
		5					
HS2	Remote sensing retrieval techniques and data	1	O (28 (B))				
	assimilation	2	O (28 (B))				
	ussimilation	3	P (A)				
		5	1 (11)				
HS3	Space observations and field experiments	1					
1100		2					
		3	O (31) P (A)	1			
		5	r (A)				
HS4	Water storage, level and discharge from remote	1					
1151	sensing and geodesy (co-listed in G & GI)	2					
	sensing and geodesy (co-listed in O & OI)	3	0 (21)	D(4)			
		4	O (31)	P (A)			
HS6	Operational applications of remote sensing in water	1					
1150		2					
	resources management and hydrology	3					
		4	-	O (30 (C))	P (A)		
HS7	Subaution flow, solute transport, and anarray	1					
П5/	Subsurface flow, solute transport, and energy processes: concepts, modelling, and observations	2					P (A)
		3				O (28 (B))	
		4				O (28 (B))	
11CO		5	O (30 (C))				
HS8	Subsurface assessment and characterisation of flow, transport, and fate using physical, chemical, and isotopic tools (co-listed in IG)	2	O (30 (C))				
		3	O (30 (C))				
		4	P (A)				
HS9	Undrogoon hypigg in subsurfage hydrology	1				O (28 (B))	
П39	Hydrogeophysics in subsurface hydrology	2				O (28 (B))	
		3					
		4				P (A)	
HS10	Urban impacts on soils and groundwater (co-listed in SSS)	1					
HS10		2			O (31)		
		3					
		4			P (A)		
11011		5					
HS11	Fissured and karstified aquifers (co-listed in IG)	2					
		3		O (31)			
		4		P (A)			
11010		5					
HS12	Geothermal energy and brine transport	2					
		3					
		4			O (31)	P (A)	
11012		5					
HS13	Application of optical technologies in surface and groundwater systems	2					
		3					
		4					
		5		0.(21)			
HS14	Groundwater stochastic hydrology	1 2		O (31)			
		3					
		4		P (A)			
		5					

Session	Title	TB	MO	TU	WE	TH	FR
HS15	Colloids, microorganisms and coupled hydrological,	1					
11010	biological and chemical processes in the unsaturated	2			0.(21)		
	zone	3 4			O (31) P (A)		
	Zone	5			. ()		
HS16	Coupled hydrological, biological and chemical	1					
	processes in the unsaturated zone	2					
	processes in the unsaturated zone	3 4					
		5					
HS17	Unsaturated zone flow and transport processes: from	1					
	science to soil and water management	2		O (31)			
	serence to som and water management	3 4		P (A)			
		5		1 (11)			
HS18	Persistent organic pollutants in soils: sources, sinks,	1			O (31)		
	and processing	2 3					
	and processing	4			P (A)		
		5			1 (11)		
HS19	Monitoring and modelling for soil and	1					
11017	ecohydrological processes across landscape	2					P (A)
	elements	3					O (28 (B)) O (28 (B))
	elements	5					U (28 (B))
HS20	Technological potential for assessing soil erosion	1	O (31)				
11520	and sediment transport in ungauged river basins	2					
	and sediment transport in ungauged river basins	3 4	P (A)				
		5	P (A)				
HS21	Harmonisation and standardisation of transboundary	1					1
11521	sediment activities	2					
		3 4					
		4					
HS22	River and stream temperature: dynamics, processes,	1					
11522		2					
	models and implications	3					
		4 5		O (31)	P (A)		
HS23	Hydrological, chemical and biological processes in	1					
П525		2			O (30 (C))		
	rivers and riparian zones (co-listed in BG & GM)	3			O (30 (C))	P (A)	
		4 5			O (30 (C))		
HS24	Sediment tracing and risk assessment for sediment	1					
11524	-	2	O (31)				
	management	3					
		4 5	P (A)				
HS25	Lakes and inland seas under anthropogenic impact	1				O (30 (C))	
П525		2				O (30 (C))	
	and climate change (co-listed in CL & ERE)	3				P (A)	
		4 5					
HS27	Onen assign on establishing and process	1			O (28 (B))		
п527	Open session on catchment modelling and process	2			O (28 (B))		
	analysis	3			O (28 (B))		
		4			P (A)		
110.20	Catalument structure and accuracy to the for the 1	5					
HS28	Catchment structure and connectivity (co-listed in	2			<u> </u>		P (A)
	GM, BG & SSS)	3				O (31)	
		4		<u> </u>	ļ	O (31)	
11020		5				O (31)	
HS29	Objective and process-based catchment	2		1		O (31) O (31)	
	classification as a tool for predictions in ungauged	3				P (A)	
	basins	4					
		5					0.00.00
HS30	Experimental river basins	1 2					O (30 (C)) O (30 (C))
		3			1		P (A)
		4					
		5		1	1		

Session	Title	TB	MO	TU	WE	TH	FR
HS31	Coupled modelling and observation of terrestrial and	1					
11551	atmospheric water fluxes across multiple spatial and	2		-			-
	temporal scales	3					
	temporar searces	5					
HS32	Climate-soil and vegetation interactions in	1					O (28 (B))
	ecological-hydrological processes (co-listed in AS,	2					O (28 (B)) P (A)
	CL, NP & SSS)	4					I (A)
		5					
HS33	Monitoring network design and new instrumentation	1 2					
	in hydrology	3	O (28 (B))				
		4	O (28 (B))	P (A)			
		5					
HS34	Calibration, data assimilation, and uncertainty	1 2					P (A)
	estimation of spatially distributed and integrated	3					O (30 (C))
	catchment models	4					O (30 (C))
11007		5					
HS37	Sustainable catchment management: assessing water	2					
	quality on the catchment scale	3					
		4		O (28 (B))	P (A)		
11026		5					
HS36	Hydrological extremes: controls, spatial & temporal	2					P (A)
	variability and regional patterns	3				O (30 (C))	
		4				O (30 (C))	
110.20		5					
HS38	Anthropogenic impacts on transitional environments	2					
	(co-listed in CL & ERE)	3					
		4					
HS39	Stanhastia dynamia modelling of presinitation (as	1					O (31)
П339	Stochastic-dynamic modelling of precipitation (co- listed in NP & AS)	2					
		3					200
		4					P (A)
HS40	Novel techniques for measuring rainfall micro- and	1					
11540	macro-structure (co-listed in AS & NH)	2					O (31)
		3					P (A)
		5					1 (A)
HS41	Statistical concepts in understanding and modelling	1					
	hydro-climatic change (co-listed in NP, CL and AS)	2					0 (21)
		4					O (31) P (A)
		5					
HS42	Integrated water resources assessment, with special focus on developing countries	1			O (30 (C))		
		2				P (A)	
		4				- ()	
		5					
HS43	Instruments for integrated and transboundary water resources management	1 2					
		3				P (A)	
		4			O (28 (B))		
		5					
HS44	Middle East water – towards equitable and sustainable management	1 2		1	-		
		3					
		4		<b> </b>			
11045	Modelling and observation of budgets in the	5					
HS45	Modelling and observation of hydrological and	2					P (A)
	biological processes in West Africa (co-listed in	3		<u> </u>			
	BG)	4					0 (31)
HS46	Hydroinformatics: computational intelligence or 1	5		O (30 (C))			
п <b>5</b> 40	Hydroinformatics: computational intelligence and	2		O (30 (C))			
	technological developments in water science	3		O (30 (C))			
	applications (co-listed in NH & GI)	4		P (A)			

Session	Title	TB	MO	TU	WE	TH	FR
HS48	Connectivity: conditions for the transfer of water,	1					
	sediment and organisms on hillslopes and in	2					
	channelways (co-listed in GM)	3					
	chamerways (co-fisted in Oivi)	5					
HS49	Dryland hydrology	1					
110 17	Difinite injeroiogy	2					
		3	O (30 (C))	P (A)			
		5	0 (30 (C))	P (A)			
NH2.04	Risk assessments of complex flood situations (co-	1					
1112:01	listed in HS)	2					P(XY)
	nsed in fis)	3				O (18)	
		5				0(10)	
NH2.05	Integrated Natural Hazard Protection (floods and	1				O (18)	
1112:00	mass movement): Structural and nonstructural	2				O (18)	P(XY)
	mass novement). Structural and nonstructural measures – state-of-the-art (co-listed in HS)	3					
	measures – state-or-me-art (co-fisted in HS)	5					
NH8.03	Natural and anthropogenic hazards in karst areas	1					
1110.05	(co-listed in GM & HS)	2	P(XY)				
	(co-listed lif Ow & lis)	3	O (16 (L)) O (16 (L))				
		5	O (16 (L)) O (16 (L))				
SSS11	Hydropedology: A synergistic tool to shape EU	1	- ( ( <u>-</u> ))				
55511	guidelines for water and soil (co-listed in HS)	2					
	guidennes for water and son (co-fisted in fis)	3				0 (22)	
		5				O (33) P (A)	
SSS10	3D Visualization and Quantification of Soil Pore	1				- ()	
55510	Geometries (co-listed in HS)	2	O (33)				
	Geometries (co-fisied in Fis)	3					
		4	P (A)				
SSS12	Transport in preferential flow domains of the soil	1	1 (/1)				
55512		2					
	porous system: Measuring, interpretation, models,	3	O (33)				
	upscaling (co-listed in HS)	4	O (33) P (A)				
SSS14	Improving spatial predictions of soil erosion (co-	1	r (A)				
55514		2					
	listed in HS & GM)	3			O (33)		
		4			P (A)		
SSS15	Soil proving accompany and integrated approaches	1			r (A)		
55515	Soil erosion assessment and integrated approaches	2					
	for remediation (co-listed in HS & GM)	3					
		4			O (33)		
CII	Onen accelen en Casacience Instrumentation (ac	5			P (A)		
GI1	Open session on Geoscience Instrumentation (co-	2					
	listed in GMPV, G, HS, MPRG, NH, OS & SM)	3	O (2)				
		4	O (2)	D (MM)			
<b>CI10</b>		5	O (2)	P(XY)			O (29)
GI10	Informatics: distributed information systems - technology and applications (co-listed in AS, CL, G, CR, GD, GM, GMPV, HS, MPRG, OS, PS, ST, SM,	2					O (29)
		3					O (29)
		4					P(XY)
	TS, SSP, SSS & NH)	5					
GM6	Large Rivers - how does our small river theory scale upwards? (co-listed in HS)	1					
-		2					
		3		1			
		5				1	
GM5	Bedrock Channel Morphology and Dynamics (co-	1					
GM5		2					
GM5	listed in HS)				1	1	ļ
GM5	listed in HS)	3					
GM5	listed in HS)	3 4 5					
		4 5 1					
GM5 CR90	Mountain Hydrology and Climatology: present state	4 5 1 2					
		4 5 1		O (29)			

Session	Title	TB	MO	TU	WE	TH	FR
CR100	Remote sensing of snow cover and sea ice (co-listed	1		O (29)			
entroo	in HS)	2				-	
		3					
		5		P (A)			
BG3.03	Fluvial networks and biogeochemistry (co-listed in	1					
<b>DG</b> <i>3</i> .03	<b>e</b> • •	2					
	HS)	3	P (BG)				
		4 5				-	
4 5 1 0 2	Observation Durdiction and Varification of	1				O (10 (E1))	
AS1.03	Observation, Prediction and Verification of	2				O (10 (E1))	
	Precipitation (General Session) (co-listed in HS)	3			P(XY)	O (10 (E1))	
		4			P(XY)	O (10 (E1))	
		5					
CL38/	Earth System Modelling: Strategies and Software	1 2					
GI12	(co-organized by GI, co-listed in AS, HS & OS)	3					
		4		O (14)			
		5		P (XY)			
CL19/	Climatic Extremes and their Impacts (co-listed in	1					O (13 (F1))
CL14	HS & ERE) / Mid-latitude cyclones: processes,	2 3		-		-	O (13 (F1)) O (13 (F1))
	variability, changes and impacts	4					P (XY)
	variability, changes and impacts	5					1 (111)
CL22/	Land-atmosphere coupling in past, present and	1					
CL35	future climate (co-listed in AS, BG & HS) /	2					
CL35		3		O (25)			
	Subsurface temperature signals of climate change,	4 5		O (25) P (XY)			
	processes involved, and importance to climate modeling	5		1 (A1)			
NP5.05	Ensemble prediction in hydrology (HEPEX) (co- listed in HS & NH)	1					
NI 5.05		2					
		3			O (24)		
		4 5		D (VV)			
		5		P (XY)			P (XY)
NH2.03	Uncertainty and non stationarity in flood risk predictions (co-listed in HS)	2					1 (21)
		3					
		4					
		5				O (18)	
NH2.02	Operational tools for flash-flood forecasting (co- listed in HS)	1 2					P (XY)
		3				O (18)	
	,	4				0 (10)	
		5					
NH2.01	Flood Hazards: Historical Documentation,	1					
	Reconstruction, Perception and Modern Risk Management (co-listed in HS)	2		ł		+	
		3 4					
		5		1	1	1	
NP6.07	Turbulence and dispersion in particle-laden	1					
	geophysical flows: theory and models (co-listed in HS & SSP)	2					
		3					O (22)
		4				P(XY)	
ND2 00		5					
NP3.08	Scales and scaling in surface and subsurface	2					
	hydrology (co-listed in HS)	3					
		4		P (XY)	O (27)		
		5			O (27)		