4th International Conference
on the Status and Future of the
WORLD's LARGE RIVERS


Ganges


Murray-Darling


Congo


Amazon


Mississippi


Danube

WORLDs LARGE RIVERS
MOSCOW 2021

3.-6. August 2021,
Moscow, Russia // Online

CONFERENCE PROGRAMME

RUSSIAN GEOGRAPHICAL SOCIETY · FOUNDED IN 1845 ·

IAHR AIRH International Association for Hydro-Environment Engineering and Research
hosted by Spain Water and IWHR, China

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UNESCO United Nations Educational, Scientific and Cultural Organization · Intergovernmental Hydrological Programme

BOKU

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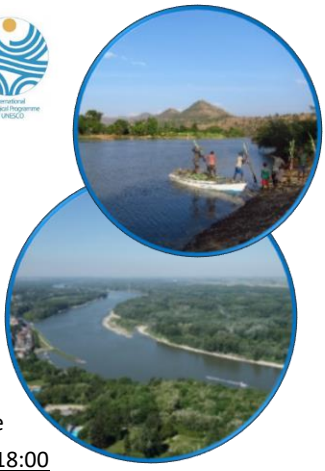


World's Large Rivers Initiative

WLRI Meeting – AGENDA

4th of August 2021

Dear participant of the World's Large Rivers Conference!

We cordially invite you to take part in the World's Large Rivers Initiative Meeting, which will be held on Wednesday, 4th of August 2021 at 18:00 Moscow Time (15:00 UTC) as an online event in the framework of the World's Large Rivers Conference.

The **World's Large Rivers Initiative (WLRI)** was approved by the Intergovernmental Council of the Intergovernmental Hydrological Programme (IHP) of UNESCO in 2014 and has been prolonged in 2018.

This Initiative fosters the linkage between research at and management of large river basins by bringing together scientists and practitioners from all fields of river related research. Beside organising the World´s Large Rivers Conferences, a main activity is the organization of a joint international project at large rivers. This core project is an integrated assessment of the status and future of the World's Large Rivers. The kick-off project for this started with the assessment of three large rivers – Danube, Mekong and Niger – of which first results will be presented during this meeting.

Now, the objective is to extend this assessment to a larger number of rivers. Hence, this meeting will discuss the next steps of the future implementation of this global assessment and is looking for researchers who are interested to be part of a network by representing their river / country. The network will consist of scientists and researchers coming from different river basins and fields of research.

Take the chance and become part of this Initiative!

I am looking very much forward to welcoming you at this meeting,

Helmut Habersack
Chair of International Scientific Committee (ISC)

Announcement: World's Large Rivers Initiative Meeting

WLRI Meeting – PROGRAMME

4th of August 2021

18:00 **Welcome** by our host ***Michael Tritthart*** (BOKU University of Natural Resources and Life Sciences, Vienna, Austria)

18:05 **Introductory presentation** about the World's Large Rivers Initiative by ***Helmut Habersack*** (BOKU University of Natural Resources and Life Sciences, Vienna, Austria)

- UNESCO & the World's Large Rivers Initiative
- Intergovernmental Council of UNESCO and the
- The ninth phase of the Intergovernmental Hydrological Programme 2022-2029
- Project "RiBaM" – Test assessment on three rivers (Danube, Niger, Mekong)

18:15 **Panel discussion** with highly ranked scientists:

Anil Mishra (Chief of Hydrological System and Water Scarcity Section, UNESCO)
Expert on UNESCO water initiatives and international cooperation

Sergey Chalov (Faculty of Geography, Lomonosov Moscow State University, Russia)
Expert on Arctic / Siberian rivers and geomorphology

Gil Mahé (Institute of Research for Development IRD, France / Tunisia)
Expert on African rivers under changing climatic conditions

Francis Chiew (CSIRO Land and Water, Canberra, Australia)
Expert on hydroclimate, modelling and integrated water resources management

Luna Bharati (IWMI, Nepal / Germany)
Expert on water resources management and policy engagement

Helmut Habersack (BOKU University of Natural Resources and Life Sciences, Vienna, Austria)
Expert on hydrology, sediment research and integrated river management

18:45 **Live questions** from the audience will be discussed among the panelists

19:10 **Summary** by our host ***Michael Tritthart***

19:15 End of the WLRI meeting

Keynote Speakers

We are happy and proud to announce a highly ranked line-up of **Keynote Speakers**:

Dr. ***Alexander GELFAN***

Dr.Sci. in Phys. & Math, Director
Water Problems Institute of Russian Academy of Sciences, Russia

Keynote Topic: **Climate change and threats to water security**

Dr. ***Ellen WOHL***

Professor of Geology and University Distinguished Professor
Dept of Geosciences, Colorado State University, USA

Keynote Topic: **Messy Rivers are Healthy Rivers: the Role of Spatial Heterogeneity in Sustaining River Ecosystems**

Dr. ***Jim BEST***

Professor of Geography and Geographic Information Science, Mechanical Science and Engineering; Department of Geology, University of Illinous Urbana-Champaign

Keynote Topic: **Anthropogenic Stresses on Large Rivers - An Update and Expansion of the Nature Geo Review from 2019**

Dr. ***Nikolay KASIMOV***

Professor at Lomonosov Moscow State University and Full Member of the Russian Academy of Sciences

Keynote Topic: **Terrestrial particulate and dissolved flux by largest Russian rivers**

Co-Authors: Sergey Chalov (C.V.), Mikhail Lychagin, Galina Shinkareva & Vasily Efimov

Invited Speakers

We also thank our **Invited Speakers** for giving us insight in their current fields of research:

Ulrich Looser

Global Runoff Data Centre (GRDC) at the German Federal Institute of Hydrology (BfG), Koblenz, Germany

Invited Lecture: **The Global Runoff Data Centre (GRDC)**

Liudmila Lebedeva

Melnikov Permafrost Institute, Yakutsk, Russia

Invited Lecture: **River streamflow in permafrost environment: complicated relations and recent changes**

Natalia Frolova

Lomonosov Moscow State University, Russia

Invited Lecture: **Modern water regime of Russian European rivers: Analysis and mapping**

Gil Mahé

IRD and INSTM Carthage, Tunisia

Invited Lecture: **The impact of dams on the reduction of solid transports to the sea in north Africa: Evidence from sediment cores and suspended time series**

Sergey Chalov

Lomonosov Moscow State University, Faculty of Geography, Russia

Invited Lecture: **Sedimentation processes in the Russian large river deltas: North to South variations**

Franz-Josef Maringer

BOKU – University of Natural Resources and Life Sciences Vienna, Austria; TU Wien – University of Technology Vienna, Austria

Invited Lecture: **Radioactive contamination of the Danube - 50 years of research**

Erik Mosselman

Deltares, Delft, the Netherlands; Delft University of Technology, Delft, the Netherlands

Invited Lecture: **River training using surface screens: the legacy of M.V. Potapov**

Helmut Habersack

BOKU – University of Natural Resources and Life Sciences Vienna, Austria

Invited Lecture: **On the Status and Future of World´s Large Rivers: a comparison of the Danube, Niger and Mekong - a contribution to the UNESCO WLRI**

Instructions for Presenters

Both, oral and poster presentations will be given via Zoom Meeting.

The links to these meetings will be provided in due time before the conference.

Oral presentations:

Oral presentations will be done via a professional Zoom Conference Meeting.

As presenting author you will be able to share your screen and to show your presentations slides. Please, find a template of the presentation slides for 4:3 or 16:9 on our webpage.

You will have 12 minutes for your presentation + 3 minutes for answering questions from the audience. The questions (posed either in the Q&A-Box or by digitally raising the hand) will be managed by the Session Chair.

Please, make sure that your technical equipment (audio and microphone) is working correctly. In case that you should not be familiar with the Zoom Meeting Software, we will provide a testing possibility with tutors who will assist you on Monday, 2nd of August (detailed information about this will follow in due time).

IMPORTANT NOTE: as presenting author (either for oral or poster presentation) it is required that you will enter the online zoom meeting 15 minutes before your session starts!

Instructions for Presenters

Poster presentations:

Poster presentations will be given via a professional Zoom Conference Meeting in separated break-out-rooms.

As presenting author you are asked to stay in your break-out-room during the entire duration of the poster session (45 min). Interested attendees can switch between the different break-out-rooms (posters) and directly ask questions and discuss with the author.

IMPORTANT NOTE: we will publish your poster one week before the conference on our webpage, so that interested attendees can already read them. Therefore, please, send us your digital poster as PDF not later than 25th of July to worldslargerivers@boku.ac.at.

A template for poster presentation can be downloaded from our webpage.

Please, make sure that your technical equipment (audio and microphone) is working correctly. In case that you should not be familiar with the Zoom Meeting Software, we will provide a testing possibility with tutors who will assist you on Monday, 2nd of August (detailed information about this will follow in due time).

IMPORTANT NOTE: as presenting author (either for oral or poster presentation) it is required that you will enter the online zoom meeting 15 minutes before your session starts!

Important Note

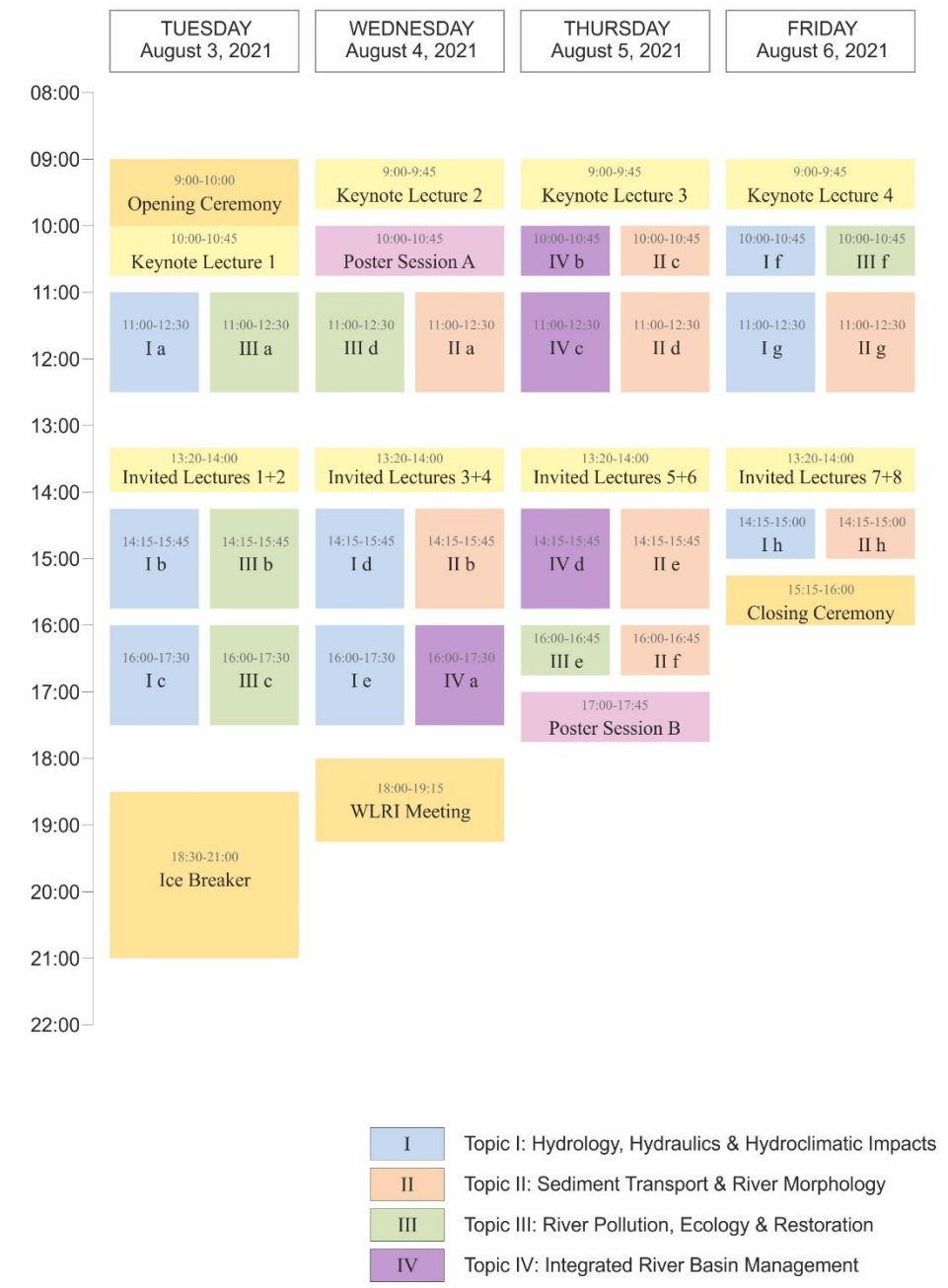
Important information:

all indicated times refer to Moscow Time (MSK - Time zone UTC+3)

Conference Topics

Topic I	**Hydrology, Hydraulics & Hydroclimatic Impacts**
Topic II	**Sediment Transport & River Morphology**
Topic III	**River Pollution, Ecology & Restoration**
Topic IV	**Integrated River Basin Management**

Conference Programme Overview



Daily Conference Programme

Tuesday, August 3, 2021

9:00 – 10:00	**Opening Ceremony** (Zoom Session A) Welcome speeches	
10:00 – 10:45	**Keynote Lecture 1** (Zoom Session A) "Climate change and threats to water security" *Gelfan, A.*	
11:00 – 12:30	**Oral Presentations I a** "Hydrology under changing environmental conditions (Part I)" (Zoom Session A)	**Oral Presentations III a** "Biodiversity, bioindication & conservation in Russian rivers (Part I)" (Zoom Session B)
13:20 – 13:40	**Invited Lecture 1** (Zoom Session A) "The Global Runoff Data Centre (GRDC)" *Looser, U.*	
13:40 – 14:00	**Invited Lecture 2** (Zoom Session A) "River streamflow in permafrost environment: complicated relations and recent changes" *Lebedeva, L.*	
14:15 – 15:45	**Oral Presentations I b** "Hydrology under changing environmental conditions (Part II)" (Zoom Session A)	**Oral Presentations III b** "Biodiversity, bioindication & conservation in Russian rivers (Part II) / Chemical water quality" (Zoom Session B)
16:00 – 17:30	**Oral Presentations I c** "Catchment-wide / large scale hydrological assessments" (Zoom Session A)	**Oral Presentations III c** "River ecology & restoration" (Zoom Session B)
18:30 – 21:00	**Ice Breaker**	

Daily Conference Programme

Wednesday, August 4, 2021

9:00 – 9:45	**Keynote Lecture 2** (Zoom Session A) "Messy rivers are healthy rivers: the role of spatial heterogeneity in sustaining river ecosystems" *Wohl, E.*	
10:00 – 10:45	**Poster Session A**	
11:00 – 12:30	**Oral Presentations III d** "River pollution" (Zoom Session A)	**Oral Presentations II a** "Morphology under changing environmental conditions" (Zoom Session B)
13:20 – 13:40	**Invited Lecture 3** (Zoom Session A) "Modern water regime of Russian European rivers: Analysis and mapping" *Frolova, N.*	
13:40 – 14:00	**Invited Lecture 4** (Zoom Session A) "The impact of dams on the reduction of solid transports to the sea in north Africa: Evidence from sediment cores and suspended time series" *Mahé, G.*	
14:15 – 15:45	**Oral Presentations I d** "Hydraulics - experiments, measurements & modelling" (Zoom Session A)	**Oral Presentations II b** "Measurement and modelling of sediment transport" (Zoom Session B)
16:00 – 17:30	**Oral Presentations I e** "River ice & thermal regime" (Zoom Session A)	**Oral Presentations IV a** "Hydropower / flood management / conflicting demands" (Zoom Session B)
18:00 – 19:15	**WLRI Meeting** (Zoom Session A)	

Daily Conference Programme

Thursday, August 5, 2021

9:00 – 9:45	**Keynote Lecture 3** (Zoom Session A) "Anthropogenic stresses on large rivers - An update and expansion of the Nature Geo Review from 2019" *Best, J.*	
10:00 – 10:45	**Oral Presentations IV b** "Transboundary management" (Zoom Session A)	**Oral Presentations II c** "Morphological stabilization measures (Part I)" (Zoom Session B)
11:00 – 12:30	**Oral Presentations IV c** "Integrated water management (Part I)" (Zoom Session A)	**Oral Presentations II d** "Morphological stabilization measures (Part II)" (Zoom Session B)
13:20 – 13:40	**Invited Lecture 5** (Zoom Session A) "Sedimentation processes in the Russian large river deltas: North to South variations." *Chalov, S.*	
13:40 – 14:00	**Invited Lecture 6** (Zoom Session A) "Radioactive contamination of the Danube - 50 years of research" *Maringer, F.*	
14:15 – 15:45	**Oral Presentations IV d** "Integrated water management (Part II)" (Zoom Session A)	**Oral Presentations II e** "Management of sediment and river morphology" (Zoom Session B)
16:00 – 16:45	**Oral Presentations III e** "Ecology under changing environmental conditions / Fish ecology (Part I)" (Zoom Session A)	**Oral Presentations II f** "Sediment transport under changing environmental conditions" (Zoom Session B)
17:00 – 17:45	**Poster Session B**	

Daily Conference Programme

Friday, August 6, 2021

9:00 – 9:45	**Keynote Lecture 4** (Zoom Session A) "Terrestrial particulate and dissolved flux by largest Russian rivers" *Kasimov, N.*	
10:00 – 10:45	**Oral Presentations I f** "Hydrological extremes: floods" (Zoom Session A)	**Oral Presentations III f** "Fish ecology (Part II)" (Zoom Session B)
11:00 – 12:30	**Oral Presentations I g** "Hydrological extremes: low flows & droughts" (Zoom Session A)	**Oral Presentations II g** "Large scale river morphology (Part I)" (Zoom Session B)
13:20 – 13:40	**Invited Lecture 7** (Zoom Session A) "River training using surface screens: the legacy of M.V. Potapov" *Mosselman, E.*	
13:40 – 14:00	**Invited Lecture 8** (Zoom Session A) "On the Status and Future of World´s Large Rivers: a comparison of the Danube, Niger and Mekong - a contribution to the UNESCO WLRI" *Habersack, H.*	
14:15 – 15:00	**Oral Presentations I h** "Impact of dams on hydrology" (Zoom Session A)	**Oral Presentations II h** "Large scale river morphology (Part II)" (Zoom Session B)
15:15 – 16:00	**Closing Ceremony** (Zoom Session A) Best Poster Award Final speeches	

Oral Sessions, Tuesday, 3 August 2021

	Oral Presentations I a **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Hydrology under changing environmental conditions (Part I)*** (11:00 – 12:30, Zoom Session A)	**Oral Presentations III a** **"River Pollution, Ecology & Restoration"** ***Biodiversity, bioindication & conservation in Russian rivers (Part I)*** (11:00 – 12:30, Zoom Session B)
11:00 – 11:15	Climate change and water management in the Murray-Darling Basin *Chiew, F.*	Environmental problems of the Arctic territories of the Yenisei River *Bondareva, L.*
11:15 – 11:30	Climate change impact assessment on the Syr Darya River runoff *Ayzel, G.V.*	Spatial modelling for conservation of ecosystem for the Novosibirsk Reservoir *Tskhai, A. & Ageikov, V.*
11:30 – 11:45	Flow prediction using future scenarios in the Chéliff catchment, North West Algeria: Case of the Sidi M'hamed Ben Aouda dam *Zaibak, I., Meddi, M. & Mahé, G.*	Water quality in the Volga headwaters *Kuzovlev, V.V., Grigoryeva, I.L., Komissarov, A.B., Chekmareva, E.A. & Schletterer, M.*
11:45 – 12:00	Model-based assessing the Selenga Basin runoff sensitivity to climate change *Millionshchikova T. & Gelfan A.*	Factors affecting bloom outbreaks in the Gorky Reservoir *Erina, O., Tereshina, M., Vilimovich, E. & Sokolov, D.*
12:00 – 12:15	Projecting changes in water balance components of Arctic river basins *Nasonova, O.N., Gusev, Y.M., Kovalev, E.E.1 & Ayzel, G.V.*	The hydrological conditions of fish reproduction in Lower Don River *Goncharov, A., Georgiadi, A., Semenova, A. & Kireeva, M.*
12:15 – 12:30	The world's large rivers' runoff: natural variations and forecast *Dobrovolski, S.*	Nature reserves (zapovedniks) in the Volga catchment: Protection and management *Schletterer, M., Kuzovlev, V., Zheltukhin, A. Litvinov, K., Osipov, V. & Ruchin, A.*

Oral Sessions, Tuesday, 3 August 2021

	Oral Presentations I b **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Hydrology under changing environmental conditions (Part II)*** (14:15 – 15:45, Zoom Session A)	**Oral Presentations III b** **"River Pollution, Ecology & Restoration"** ***Biodiversity, bioindication & conservation in Russian rivers (Part II) / Chem. water quality*** (14:15 – 15:45, Zoom Session B)
14:15 – 14:30	Improving historic flood reconstruction using a detailed 1D-2D coupled hydraulic model approach *Ngo, H., Bomers, A., Augustijn, D.C.M et al.*	The impact of anthropogenic transformation of the watershed on the ecological condition of the river *Trifonova, T.*
14:30 – 14:45	Water regime transformation in downstream of European Russia's large Rivers *Kireeva, M., Rets, E., Samsonov, T. et al.*	Sources of pollution of the Volga River within the Republic of Mari El *Goncharov, E., Anufriev, M., Obukhov, A., Malyuta, O., Yarantseva, E. & Ivashechkin, A.*
14:45 – 15:00	Modeling of the River Lena floodplains inundation under changing climate *Krylenko, I. & Kornilova, E.*	Discharge-related fluxes of particle-reactive elements in Swedish rivers *Weimar, N.E., Schmidt, K., Kurahashi, E. & Bau, M.*
15:00 – 15:15	The impact of regional climate changes on the emergence of extreme hydrological situations … *Sidorova, M.V. & Kashutina, E.A.*	Iron in the waters "Don River – Azov Sea" megaprofile *Fedorov, Y.A., Dotsenko, I.V. & Dmitrik, L.Y.*
15:15 – 15:30	Modeling current and future hydrologic processes in Bouregreg River Catchment *Brouziyne, Y., Abouabdillah, A., Chehbouni, A. & Benaabidate, L.*	Biogeochemistry of metals in Amur River and Yangtze River estuaries *Shulkin, V. & Zhang, J.*
15:30 – 15:45	Climatic and man-induced hydrological changes *Koronkevich, N.I., Georgiadi, A.G., Barabanova, E.A., Dolgov, S.V. et al.*	Pesticide administration strategies for hazards on farms in the Caribbean *Shah, M.*

Oral Sessions, Tuesday, 3 August 2021

	Oral Presentations I c **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Catchment-wide / large scale hydrological assessments*** (16:00 – 17:30, Zoom Session A)	**Oral Presentations III c** **"River Pollution, Ecology & Restoration"** ***River ecology & restoration*** (16:00 – 17:30, Zoom Session B)
16:00 – 16:15	Stable isotopes of water in the Indus River Basin, Northwest Himalayas *Bhat, M.A., Zhong, J. & Li, S.-L.*	Country-wide statistical modelling of flow-ecology relations in Polish rivers *Keller, A., Piniewski, M., Chattopadhyay, S. & Baldan, D.*
16:15 – 16:30	Application of GRACE mission to study the watersheds water balance *Grigorev, V. & Frolova, N.*	Water table dynamics and surface water chemistry patterns of north-eastern drained part of Great Vasyugan Mire *Kharanzhevskaya, Yu.A.*
16:30 – 16:45	Hydrological projections for large Arctic basins: modeling and uncertainty issues *Gelfan, A., Kalugin, A., Krylenko, I. & Motovilov, Y.*	Transfer of artificial radionuclides by biota of the Yenisei River *Zotina, T., Dementyev, D. Alexandrova, Yu. & Melgunov M.*
16:45 – 17:00	The Pechora Estuary – Greatest microtidal delta of Russia? *Alabyan, A., Vasilenko, A., Demidenko, N., Krylenko, I., Panchenko, E. et al.*	Restoring the Rhine: Feedbacks of gravel augmentation and bank (re-)erosion *Chardon, V., Schmitt, L., Piégay, H., Arnaud, F. & Clutier, A.*
17:00 – 17:15	Soft variables can explain uncertainties in discharges of South-American large rivers *Navarro, F.A.R., Rápalo, L.M.C., Guzmán, D.A. & Mendiondo, E.M.*	Restoration of Ichamoti River in Bangladesh *Chowdhury, A.I.A. & Rahman, M.R.*
17:15 – 17:30	The tributaries contribution of different climatic zones to Pyanj River runoff *Normatov, I.Sh., Muminov, A.O. & Normatov, P.I.*	Floodplain restoration project along a Danube stretch in Bavaria (Germany) *Cyffka, B., Stammel, B., Betz, F. & Gelhaus, M.*

Oral Sessions, Wednesday, 4 August 2021

	Oral Presentations III d **"River Pollution, Ecology & Restoration"** ***River pollution*** (11:00 – 12:30, Zoom Session A)	**Oral Presentations II a** **"Sediment Transport & River Morphology"** ***Morphology under changing environmental conditions*** (11:00 – 12:30, Zoom Session B)
11:00 – 11:15	Evolution of the Rhine River's industrial pollution: Historical and legal approach *Ly Keng, C., Badariotti, D. & Berrod, F.*	Influence of fluvial environment evolution on the dynamics of groundwater *Bujakowski, F., Falkowski, T., Podlasek, A. & Ostrowski, P.*
11:15 – 11:30	The Global 100 Plastic Rivers project: Investigating microplastic contamination in over 100 river systems around the world *Nel, H.A., Krause, S., Drummond, J. et al.*	Anthropogenic, climatic impacts on The Medjerda delta and coastal dynamic *Zahar, Y., & Albergel, J.*
11:30 – 11:45	GPS tracking of plastic items in the Austrian Danube River *Liedermann, M., Pessenlehner. S., Gmeiner, P., Tritthart, M. & Habersack, H.*	Large rivers on the permafrost zone at the past *Sidorchuk, A.Y., Panin, A.V. & Borisova, O.K.*
11:45 – 12:00	Description of fluvial macro plastic transport processes using numerical simulation *Pessenlehner, S., Liedermann. M., Tritthart, M. & Habersack, H.*	Climate and human activities impact on Russian large rivers channels *Chalov, R.S.*
12:00 – 12:15	Microplastics in the surface waters of Russian rivers: A first glance *Frank, Y., Vorobiev, E., Kulinicheva, K., Kayler, O., Trifonov A. & Vorobiev, D.*	Climate change and human influences on the future sediment budget of the Rhine Meuse Delta *Cox, J.R., Dunn, F.E., Nienhuis, J.H. et al.*
12:15 – 12:30	Pollution transfer by microparticles in urban water bodies *Yasinsky, S., Kashutina, E. & Sidorova, M.*	Historical changes to the geomorphic character and distribution of waterholes *Pearson, M.R., Reid, M.A., Miller, C. & Ryder, R.*

Oral Sessions, Wednesday, 4 August 2021

	Oral Presentations I d **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Hydraulics - experiments, measurements & modelling*** (14:15 – 15:45, Zoom Session A)	**Oral Presentations II b** **"Sediment Transport & River Morphology"** ***Measurement and modelling of sediment transport*** (14:15 – 15:45, Zoom Session B)
14:15 – 14:30	Integrated methodology of linking hydraulic structure images to numerical simulation *Carvalho, R.F. & Santos, A.*	Testing of suspended sediment concentration measurement techniques in the Danube *Pomázi, F. & Baranya, S.*
14:30 – 14:45	Simulation of flow structure in an asymmetric compound channel *Sahoo, S., Devi, K. & Khatua, K.K.*	Bedload flux modeling in large global rivers *Cohen, S., Syvitski, JMP. & Ashley, T.*
14:45 – 15:00	Influence of channel-scale secondary circulation on mixing processes downstream of river junctions *Lyubimova, T., Lepikhin, A. et al.*	Measurements and calculations of bed load transport in the Lower Amur *Petrovskaya, O. & Maltsev, A.*
15:00 – 15:15	Streamflow simulation in Oueme and Mono watersheds in Benin *Kodja, D., Koubodana, H., Akognongbé, A., Amoussou, E., Mahé, G., Vissin, E. et al.*	Characteristics of bedload transport measurements in alpine catchments *Rindler, R., Schwarz, S., Liedermann, M., Gmeiner, P., Shire, D., Kreisler, A. et al.*
15:15 – 15:30	Experiment to compare evaporation reducers in reservoirs *Hernández, M., Rosales, S., Arganis, M., Osnaya, J. & Carrizosa, E.*	Study of the sediment flux origin of Yenisei and Ob' *Ivanov, V.A. & Chalov, S.R.*
15:30 – 15:45	SonTek RS5: Advancements in ADCP technology for measuring streamflow *Fan, X. & Pimble, L.*	Coupling topographic airborne lidar and photo-sieving methods for grain-size mapping *Piasny, G., Chardon, V., Garambois, P. et al.*

Oral Sessions, Wednesday, 4 August 2021

	Oral Presentations I e **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***River ice & thermal regime*** (16:00 – 17:30, Zoom Session A)	**Oral Presentations IV a** **"Integrated River Basin Management"** ***Hydropower / flood management / conflicting demands*** (16:00 – 17:30, Zoom Session B)
16:00 – 16:15	River ice thickness in the North-East of Russia in the current climate *Zemlianskova, A., Makarieva, O., Nesterova, N. & Ostashov, A.*	Hydropower developments in selected large river basins *Wagner, B., Lasinger, N., Leutgöb, E., Kainz, M., Hauer, C. & Habersack, H.*
16:15 – 16:30	Aufeis in large river basins of Russia in current climate *Makarieva, O., Alexeev, V., Shikhov, A., Nesterova, N., Ostashov, A. et al.*	Floodplains along the Danube River and their importance for flood risk reduction, ecology and socio-economics *Eder, M., Scheuer, S. & Habersack, H.*
16:30 – 16:45	Assessment of ice jam formation for the Northern Dvina River *Semenova, N.K. & Sazonov, A.A.*	Modeling of urbanized territory flooding at a large rivers confluence *Sazonov, A., Krylenko, I. & Rumyantsev, A.*
16:45 – 17:00	Contemporary climate change impact on Kamsky Reservoir ice formation dates *Kalinin, V. & Mikova, K.*	Catastrophic floods in large river basins: dynamic complex natural processes of the surface water and groundwater interaction *Arakelian, S., Abrakhin, S., Bukharov, D. et al.*
17:00 – 17:15	Thermal regime of Russian Arctic big rivers under climate changes *Vasilenko, A., Magritskiy, D. & Frolova, N.*	Adjustment of chemical industrial along the mainstream of Yangtze River *Wang, X. & Liao, C.*
17:15 – 17:30		Methods and technologies of space monitoring of the condition of river water areas in the event of emergencies *Akovetsky, V., Afanasyev, A., Sizov, O. et al.*

Oral Sessions, Thursday, 5 August 2021

	Oral Presentations IV b **"Integrated River Basin Management"** ***Transboundary management*** (10:00 – 10:45, Zoom Session A)	**Oral Presentations II c** **"Sediment Transport & River Morphology"** ***Morphological stabilization measures (Part I)*** (10:00 – 10:45, Zoom Session B)
10:00 – 10:15	Legal framework of management of the transboundary Amur River (Heilong Jiang) *Janusz-Pawletta, B. & Solntsev, A.*	Morphological characteristics and riverbed stabilization mechanism of Nujiang River, China *Zhang, C., Xu, M., Lin Y., Huang K. & Wang Z.*
10:15 – 10:30	Climatic and anthropogenic changes in transboundary Ural River water regime *Magritsky, D., Yumina, N., Kenzhebaeva, A., Efimova, L. & Goncharov, A.*	Design to avoid sedimentation at Magdalena River mouth *Bateman, A., Sosa, R., Osorio, A. & Marín-Esteve, B.*
10:30 – 10:45	Integrated water management in Bulgarian and Romanian transboundary basin cooperation *Bournaski, E. & Bardarska, G.*	Macro roughness to mobilize sediment at the Buenaventura Bay *Bateman, A., Sosa, R. & Marín-Esteve, B.*

Oral Sessions, Thursday, 5 August 2021

	Oral Presentations IV c **"Integrated River Basin Management"** ***Integrated water management (Part I)*** (11:00 – 12:30, Zoom Session A)	**Oral Presentations II d** **"Sediment Transport & River Morphology"** ***Morphological stabilization measures (Part II)*** (11:00 – 12:30, Zoom Session B)
11:00 – 11:15	Research to help manage the Murray-Darling Basin, Australia *Post, D.A.*	Geomorphic responses of restored frequently flowing side channels along the Rhône River *Tissot, N., Riquier, J. & Piégay, H.*
11:15 – 11:30	Water-sediment regulation scheme of the Yellow River: A review *Wang, H., Bi, N., Wu, X. & Nittrouer, J.*	Sustainable side channel reconnection at the Austrian Danube *Tritthart, M., Binder, J., Liedermann, M. & Habersack, H.*
11:30 – 11:45	Optimization approaches to water resources management in the Lower Kuban *Buber, A.L., Bondarik, I.G. & Buber, A.A.*	Numerical modelling of groynes and bed degradation at the Austrian Danube *Glas, M., Tritthart, M. & Habersack, H.*
11:45 – 12:00	Problems of water resources regulation in the basins of Lake Baikal, the Angara, and the Yenisei *Nikitin, V.M., Abasov, N.V. & Osipchuk, E.N.*	Protective characteristics of different bank-protection types in the Yangtze River *Ding, B., Wang, X.X., Qu, G. & Fang, J.J.*
12:00 – 12:15	Integrated hydrolgocial modelling for integrated water resources management in Drava River floodplain *Salem, A., Dezső, J. & Lóczy, D.*	
12:15 – 12:30	Management evaluation and optimization of dispatching schedules of Irkutsk reservoir *Buber, A. & Buber, V.*	

Oral Sessions, Thursday, 5 August 2021

	Oral Presentations IV d **"Integrated River Basin Management"** ***Integrated water management (Part II)*** (14:15 – 15:45, Zoom Session A)	**Oral Presentations II e** **"Sediment Transport & River Morphology"** ***Management of sediment and river morphology*** (14:15 – 15:45, Zoom Session B)
14:15 – 14:30	Rivers of power *Smith, L.C.*	Sediment management throughout the Meuse River *Barneveld, H.J., Frings, R.M., Dewals, B.J., Melsen, L.A. & Hoitink, A.J.F.*
14:30 – 14:45	Adaptative and participatory management on the Rhine fluvial hydrosystem. Learning from the past to optimize future scenarios *Osorio-Gomez, A., Meinard, Y. et al.*	The Grand-Ethiopian-Renaissance-Dam impact on the Blue Nile discharges and sediment loads *Osman, M. & Osman, M.A.*
14:45 – 15:00	Social consequences of extreme hydrological events within large river drainage basins *Bondarev, V.P.*	Evaluation of a novel sediment management approach – case study Danube/Austria *Krapesch, M., Hauer, C., Haimann, M. et al.*
15:00 – 15:15	Oka River channel transformation and its recovery perspective *Berkovich, K.M., Zlotina, L.V. & Turykin, L.A.*	Predicting water and sediment partitioning in a delta channel network under varying discharge conditions *Dong, T.Y., Nittrouer, J.A., McElroy, B. et al.*
15:15 – 15:30	Integration of biological levels to assess impacts in river systems *Colin, N., Górski, K., Manosalva, A., López, R., Maceda-Veiga, A. & Habit, E.*	Stabilizing the Brahmaputra River in Bangladesh: Morphological modelling for planning *Thompson, A., Oberhagemann, K. & Haque, A.*
15:30 – 15:45	Improving seasonal streamflow forecasts in the Volga and Amur basins *Moreydo, V. & Gartsman, B.*	A global practicable screening tool to compare morphological characteristics in connection with anthropogenic influences *Fuhrmann, M., Habersack, H. et al.*

Oral Sessions, Thursday, 5 August 2021

	Oral Presentations III e **"River Pollution, Ecology & Restoration"** ***Ecology under changing environmental conditions / Fish ecology (Part I)*** (16:00 – 16:45, Zoom Session A)	**Oral Presentations II f** **"Sediment Transport & River Morphology"** ***Sediment transport under changing environmental conditions*** (16:00 – 16:45, Zoom Session B)
16:00 – 16:15	Bird nesting success in the conditions of climate change *O'Keeffe, J., Bukacinski, D., Bukacinska, M., Piniewski, M. & Okruszko, T.*	Is suspended sediment transport in large German rivers decreasing back to prestine levels? *Hoffmann, T., Baulig, Y., Blöthe, J. et al.*
16:15 – 16:30	CO_2 Outgassing during the historic Mississippi River flooding of 2019 *Xu, Y.J. & Xu, Z.*	Long-term changes of geo-flux components in Russian Arctic rivers *Georgiadi, A.G., Milyukova, I.P., Kashutina, E.A. & Danilenko, A.O.*
16:30 – 16:45	Impacts of regionalization strategy on the fish community structure in Polish rivers *Chattopadhyay, S., Baldan, D., Prus, P., Keller, A. & Piniewski, M.*	Forecasting sediment transport and morphological response in the Mississippi River *Soar, P., Cox, A., Thorne, C., Little, C. et al.*

Oral Sessions, Friday, 6 August 2021

	Oral Presentations I f **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Hydrological extremes: floods*** (10:00 – 10:45, Zoom Session A)	**Oral Presentations III f** **"River Pollution, Ecology & Restoration"** ***Fish ecology (Part II)*** (10:00 – 10:45, Zoom Session B)
10:00 – 10:15	The impact of instantaneous spring floods on the extreme functioning of undeveloped basins: case of the Ouaoumana catchment *Lahlou, N. & El Ghachi, M.*	The effect of attraction flow at fish passes in the epipotamal of the Drava River *Brandl, A., Käfer, S. & Mader, H.*
10:15 – 10:30	Extreme summer rainfall and floods in the mountains of Irkutsk region *Kichigina, N. & Voropay, N.*	Adaptive management of Włocławek Reservoir Dam to improve fish habitat in Vistula River *Parasiewicz, P., Suska, K. et al.*
10:30 – 10:45	Variability of high flood flows in southern Quebec *Assani, A.A. & Zeroual, A.*	Aquatic habitats in the Inn River: Correlations to river morphology *Kopecki, I., Schneider, M., Hubmann, M., Reindl, R. & Schletterer, M.*

Oral Sessions, Friday, 6 August 2021

	Oral Presentations I g **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Hydrological extremes: low flows & droughts*** (11:00 – 12:30, Zoom Session A)	**Oral Presentations II g** **"Sediment Transport & River Morphology"** ***Large scale river morphology (Part I)*** (11:00 – 12:30, Zoom Session B)
11:00 – 11:15	Regional frequency analysis of meteorological drought duration within Comoe watershed *Ismaïla, O., Léréyaha, C., Amidou, D. et al.*	Bedrock impact on the course of lowland rivers fluvial processes *Falkowski, T., Ostrowski, P. & Bujakowski, F.*
11:15 – 11:30	Changes in the frequency of heat waves and extreme climate events in the Chaliyar and Periyar River Basin, India *Vijay, A. & Varija, K.*	Morphological dynamics of a large sand bed braided river system *Chembolu, V., Dubey, A.K. & Dutta, S.*
11:30 – 11:45	Phase of precipitation as a factor of low-flows increase in the basins of large Siberian rivers *Nesterova, N. & Makarieva, O.*	Sediment transport and morphological characterisation for a large braided river using hydrodynamic modeling *Nandi, K., Pradhan, C., Khatua, K. & Dutta, S.*
11:45 – 12:00	Low flow in the Oued el Abid basin (Morocco): better understand it to better manage it (Oum Errbia Basin - Morocco) *Nafia, K. & El Ghachi, M.*	Assessing the river freedom space along the continuum of braided channel patterns using advanced geo-spatial analysis *Pradhan, C., Bharti, R. & Dutta, S.*
12:00 – 12:15	Contribution to the study of low water levels in North-West Algeria using the IEB *Toumi, S. & Meddi, M.*	The uniqueness of the river-mouth systems of the Baikal tributaries *Ilicheva, E. & Pavlov, M.*
12:15 – 12:30		Development of river deltas in permafrost zone illustrated by example of mouths of the rivers Lena and Mackenzie *Dolgopolova, E.N. & Isupova, M.V.*

Oral Sessions, Friday, 6 August 2021

	Oral Presentations I h **"Hydrology, Hydraulics & Hydroclimatic Impacts"** ***Impact of dams on hydrology*** (14:15 – 15:00, Zoom Session A)	**Oral Presentations II h** **"Sediment Transport & River Morphology"** ***Large scale river morphology (Part II)*** (14:15 – 15:00, Zoom Session B)
14:15 – 14:30	Changes in land use/ land cover and water balance components before and after dam construction in the Mono RiverBasin *Koubodana, H.D., Atchonouglo, K. et al.*	Investigation of planform change of the Amazon River near Iquitos, Peru *Garcia Angulo, K. & Kwan Tun, L.*
14:30 – 14:45	Estimating the flow of the structures of a sub-basin of the Grijalva River *Domínguez, R., Mendoza, A., Arganis, M. & Carrizosa, E.*	Birthplace Amazon River, a confluence of meandering and anabranching rivers *Guerrero, L., Flores, G., Valverde, H., Chicchon, H., Estrada, Y., Naito, K. et al.*
14:45 – 15:00	Impact of damming on the regime of the Jaguaribe River *Lima, T., De Araújo, J., Medeiros, P. & Mamede, G.*	Flow regime and bank erosion of the Anadyr River, Chukotka *Tsyplenkov, A., Shkolnyi D. & Antoniuk, A.*

Poster Session A, Wednesday, 4 August 2021

Poster Session A (10:00 – 10:45)	
A 01	Characterisation of the sources of Volga, Dnieper & Daugava *Kuzovlev, V.V. & Schletterer, M.*
A 02	Estuaries of the White Sea: Northern Dvina, Onega and Mezen' – great and different *Panchenko, E., Alabyan, A., Demidenko, N., Krylenko, I., Lebedeva, S. et al.*
A 03	Spatial distribution of the water flow at the Ili Delta *Isupova, M.V.*
A 04	Modern patterns of space-time transformation of Kolyma River hydrological regime *Frolova, N.L., Magritsky, D.V., Agafonova, S.A., Sazonov, A.A., Vasilenko, A.N. et al.*
A 05	Natural flow modeling of the Volga River during its regulation *Kalugin, A. & Motovilov, Y.*
A 06	Future projections of the Amur and Lena River runoff *Kalugin, A.*
A 07	Hydrological elements quantitative relationship betw. Dongting Lake and Yangtze *Li, C.W., You, Z.Q., Xu, Z.M. & Li, A.Q.*
A 08	Effect of roughness on apparent shear force in diverging channel *Bodapati, S.S.P., Khatua, K.K., Pinakana, L.R. & Sharma, A.*
A 09	A numerical hydrodyn. 2D model of the Amur and Zeya Rivers and the Amur Liman *Glotko, A.V., Aleksyuk, A.I., Borisova, N.M., … Fedorova, T.A. ... & Belikov, V.V.*
A 10	Impact of HPP on the hydrological regime of large rivers *Vinogradova, N. & Ruleva, S.*
A 11	Relationship betw. hydrological variability & climatic fluctuations in the Chellif Basin *Khedimallah, A., Meddi, M. & Mahé, G.*
A 12	The Volga and the Don water flow in warm climatic epochs *Georgiadi, A.G. & Milyukova, I.P.*

Poster Session A, Wednesday, 4 August 2021

A 13	Transformation of the Lower Don runoff *Nazarenko, O.*
A 14	Role of snow cover properties for ice freezing on watersheds *Frolov, D.*
A 15	Application of the LSM SWAP for hydrological simulations and projections *Gusev, Y.M., Nasonova, O.N., Kovalev, E.E., Dzhogan, L.Y. & Aizel, G.V.*
A 16	Water balance changes in the Western Dvina River Basin *Kazachuk, A. & Terskii, P.*
A 17	Diffuse biogens flow from the catchment to the Cheboksary Reservoir *Yasinsky, S.V., Kashutina, E.A., Sidorova, M.V. & Narykov, A.N.*
A 18	The environmental risk for the ecosystem of the Yenisei River *Bondareva, L. & Fedorova, N.*
A 19	Oxygen regime of the rivers of European Russia *Goncharov, A., Lobchenko, E., Agafonova, S., Semenova, A. & Vasilenko, A.*
A 20	Danube water quality dynamics: Review of web of science articles *Manoiu, V.-M. & Craciun, A.-I.*
A 21	Geological state of the Osetr River Basin *Yurova Yu.D. & Shirokova V.A.*
A 22	Chem. indicators of water quality in Pyasino river system after diesel fuel spill *Bezmaternykh, D., Puzanov, A. & Kotovshchikov A.*
A 23	Sources of nutrient pollution in the Cheboksary reservoir *Tereshina, M., Erina, O., Sokolov, D. & Vilimovich, E.*
A 24	Microparticle contribution to element transport in major river systems of Russia *Tereshina, M., Erina, O., Chalov, S., Shinkareva, G., Efimov, V. & Sokolov, D.*
A 25	Mercury behavior on boundary of natural environments in rivers estuaries *Fedorov, Y.A., Mikhailenko, A.V., Dotsenko, I.V. & Solodko, D.F.*
A 26	Hydrochemistry research of downstream of Amur River and Amur Liman *Anisimova, E.V. & Tishchenko, P.Ya.*

Poster Session A, Wednesday, 4 August 2021

A 27	Characteristics of macroinvertebrate assemblages in Alpine headwater streams *Schletterer, M., Lechthaler, W., Scotti, A. & Bottarin, R.*
A 28	Impact of riparian forest on EPTs dispersion across European ecoregions *Peredo Arce, A., Palt, M., Kail, J. & Schletterer, M.*
A 29	Macroinvertebrates reveal environmental gradients *Yanygina, L.V. & Schletterer, M.*
A 30	Nematode fish parasites in the Danube River - Belgrade section *Djikanović, V., Vasiljević, B., Cakić, P. & Lenhardt, M.*
A 31	Spatial movement of wels catfish (Silurus glanis) in the Danube *Smederevac-Lalić, M., Lenhardt, M., Spasić, S., Hont, S., Paraschiv, M., Iani, M. et al.*
A 32	Holistic fish-diversity assessment in the Volga Basin *Askeyev, I., Shaymuratova, D., Askeyev, O., Askeyev, A., Monakhov, S. et al.*
A 33	Climate change affects under-ice dynamics of phytoplankton *Erina, O., Kalenichenko, V. & Puklakov, V.*
A 34	Phytoplankton diversity dynamics of Danubian floodplain lake in the context of global CC *Mihaljević, M., Špoljarić Maronić, D., Stević, F. & Žuna Pfeiffer, T.*
A 35	Environmental guiding principles for alpine rivers: case study Biya River *Schmalfuß, L., Hauer, C., Yanygina, L.V. & Schletterer, M.*

Poster Session B, Thursday, 5 August 2021

Poster Session 5 (17:00 – 17:45)	
B 01	Physical modelling of sediment management scenarios with bottom outlets *Sandberger, J., Lichtneger, P., Sindelar, C. & Habersack, H.*
B 02	Water and sediment budget of Casiquiare channel linking Orinoco and Amazon *Laraque, A., Yepez, S., Lopez, J.L. & Georgescu, P.*
B 03	Lena delta suspended sediment budget revealed from satellite imagery *Prokopeva, K. & Chalov, S.*
B 04	Hydrogeochemical flow distribution in the Volga River Delta *Zavadskaya, M., Zavadskiy, A., Kasimov, N., Lychagin, M., Golovlev, P. & Terskii, P.*
B 05	Evolution of the sedimentary dynamics of the Cheliff wadi (Algeria) *Hadour, A., Mahe, G. & Meddi, M.*
B 06	Contemporary sediments of water ecosystems as indicators of the Anthropocene *Fedorov, Yu.A., Kuznetsov, A.N., Dotsenko, I.V. & Mikhailenko, A.V.*
B 07	Sediment transport and bathymetric changes in the Mississippi-Atchafalaya Rivers *Xu, Y.J. & Wang, B.*
B 08	Bore in branches of Yangtze, Ganges and Amazon rivers deltas *Dolgopolova, E.N.*
B 09	Large-scale hydromorphological characteristics of the glacial river Katun *Seidl, F., Reisenbüchler, M., Rutschmann, P., Yanygina, L.V. & Schletterer, M.*
B 10	Morphological change detection using time series analysis of satellite images *Arfa, A., Ayyoubzadeh, A., Mianabadi, H. & Shafizadeh, H.*
B 11	Analyzing morphodynamics of lower Indus River using GIS *Suhail, T., Allahditta, S., Siyal, A.A. & Ansari, K.*
B 12	Modern changes in morphometry and morphodynamics of large Rivers' Deltas *Mikhailova, M.*

Poster Session B, Thursday, 5 August 2021

B 13	Channel processes on the rivers of the West Siberian *Kurakova, A.A.*
B 14	Certain aspects of the Selenga River Delta modern morphodynamics *Zaharova, E.D., Belyaev, V.R., Chalov, S.R. & Harchenko, S.V.*
B 15	The river bed deformation in the permafrost zone *Debolskaya, E., Ivanov, A., Maslikova, O. & Gritsuk, I.*
B 16	Erosion at the turn sector of a river in permafrost *Maslikova, O., Gritsuk, I., Debolskaya, E. & Debolsky, V.*
B 17	Underst. Peruvian Amazon rivers to develop BMP for infrastructure: Amazon Waterway *Barreto, C.D., Guerrero, L., Flores, G., Estrada, Y., Velarde, J., Calderon, E. et al.*
B 18	Dynamics of land use and productivity indicators of the Lena River Basin *Repkin, R., Trifonova, T., Mishchenko, N. & Shutov, P.*
B 19	Assessment of flooding risk in medical facilities in Tokyo lowlands *Gotoh, H., Ishino, K. & Takezawa, M.*