



International Geographical Union
Commission for Water Sustainability
and



University of Bucharest
Research Institute of the University of Bucharest (ICUB)
Faculty of Geography, Department of Meteorology –
Hydrology



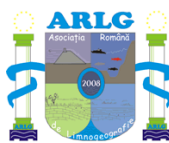
Research Center “Water Resources and Water Related
Risks Management” (GRARH)
Institute of Geography of the Romanian Academy (IGAR)



have the pleasure to invite you to the

International conference
Water sustainability in a changing world
11th - 14th June 2019, Bucharest, Romania

PROGRAM



Special thanks to Bucharest City Hall

SCIENTIFIC COMMITTEE

Dan Bălțeanu, Member of the Romanian Academy, Prof. Dr., Director of the Institute of Geography of the Romanian Academy, Chair of the Romanian National Committee of the IGU, Romania

Viorel Chendeș, Dr., S.R. II, Scientific Director of the National Institute of Hydrology and Water Management, Bucharest, Romania

Monica Dumitrașcu, Dr., S.R. I, Deputy Director of the Institute of Geography of the Romanian Academy, Romania

Petre Gâștescu, Prof. Dr. Doc., President of Romanian Limnogeographical Association, Romania

Ivan Čanjevac, Dr., Assoc. Prof., University of Zagreb, Faculty of Science, Croatia

Natalia Frolova, Prof. Dr., Vice Chair of the IGU Commission for Water Sustainability, Head of the Land Hydrology Department of the Faculty of Geography of Lomonosov Moscow State University, Russia

Chansheng He, Prof. Dr., Vice Chair of the IGU Commission for Water Sustainability, Western Michigan University, USA

Minea Ionuț, Dr., Assoc. Prof., Faculty of Geography and Geology, „Alexandru Ioan Cuza” University, Iași, Romania

Victor Sorocovschi, Prof. Dr. emer., Faculty of Geography, „Babeș-Bolyai” University of Cluj-Napoca, Romania

Gheorghe Șerban, Dr., Assoc. Prof., Faculty of Geography, „Babeș-Bolyai” University of Cluj-Napoca, Romania

Elena Țuchiu, Dr., Director of the Department on Management Plans and Watershed Schemes, “Romanian Waters” National Administration, Romania

Frank Winde, Prof. Dr. habil., Chair of the IGU Commission for Water Sustainability, North-West University, South Africa

Martina Zelenakova, Dr., Assoc. Prof., Technical University of Košice, Slovakia

LOCAL ORGANIZING COMMITTEE

Liliana Zaharia, Prof. Dr., Faculty of Geography, University of Bucharest, Romania – coordinator

Laura Comănescu, Prof. Dr., Dean of Faculty of Geography, University of Bucharest, Romania

Cristian Tălângă, Prof. Dr., Vice Dean of Faculty of Geography, University of Bucharest, Romania

Members of the Department of Meteorology – Hydrology, of Faculty of Geography, University of Bucharest, Romania:

Adrian Tișcovschi, Dr., Assoc. Prof., head of the department

Daniel Diaconu, Dr., Assoc. Prof.

Valentina Mănoiu, Dr., Assoc. Prof.

Dana Constantin, Dr., Lecturer

Gabriela Ioana-Toroimac, Dr., Lecturer

Bianca Simion, Dr., Lecturer

Elena Grigore, Dr., Assistant

Mihaela Dobre, Secretary

Gabriela Moroșanu, PhD student, University of Bucharest, Romania

Petre Brețcan, Dr., Assoc. Prof., “Valahia” University of Târgoviște, Romania

Mihaela Sima, Dr., CS I, Institute of Geography of the Romanian Academy, Romania

Diana Dogaru, Dr., Institute of Geography of the Romanian Academy, Romania

Gianina Neculau, Dr., National Institute of Hydrology and Water Management, Bucharest, Romania

Raul Ilea, MSc. Student, Faculty of Geography, University of Bucharest, Romania

PROGRAM

Tuesday, 11th June 2019

Location: Faculty of Geography, University of Bucharest, Bd. Nicolae Bălcescu 1, Sector 1, Bucharest, **3rd floor**

8:00 – 9:00 Registration (3rd floor)

9:00 – 10:00 Opening ceremony

led by Liliana ZAHARIA, Prof. Dr., coordinator of the Local Organizing Committee

George Vâlsan amphitheater (3rd floor)

Official addressing from:

Sorin COSTREIE, Dr., Assoc. Prof., Vice-Rector of the University of Bucharest, Romania

Carmen CHIFIRIUC, Prof. dr., Coordinator - Division of Earth, Environmental and Life Sciences, Research Institute of the University of Bucharest, Romania

Mioara CLIUS, Dr., Lecturer, Vice – Dean of the Faculty of Geography, University of Bucharest, Romania

Fu Bojie, Dr., Academician, Vice-President of International Geographical Union (IGU), President of the Geographical Society of China, Chinese Academy of Sciences, China

Frank WINDE, Prof. Dr. habil., Chair of the IGU Commission for Water Sustainability, North-West University, South Africa

Petre GÂȘTESCU, Prof. Dr. Doc., President of Romanian Limnogeographical Association, Romania

Elena ȚUCHIU, Dr., Director - Basin Management Plans and Schemes "Romanian Waters" National Administration, Romania

Viorel CHENDEȘ, Dr., S.R. II, Scientific Director of the National Institute of Hydrology and Water Management, Romania

Mihaela SIMA, Dr., S.R. I, Institute of Geography of the Romanian Academy, Romanian Geographical Committee, Romania

10:00 – 10:30 Coffee break

10:30 – 12:30 Keynote presentations, *George Vâlsan* amphitheater (3rd floor)

Chairpersons: Frank WINDE and Elena ȚUCHIU

10:30 – 11:00 *PPP: PERPETUAL PUMPING & POLLUTION? - POST-CLOSURE IMPACTS OF MINES ON LOCAL HYDROLOGY AND HOW THEY CAN BE MITIGATED.* **Frank WINDE**

11:00 – 11:30 *NATIONAL ADMINISTRATION "ROMANIAN WATERS" – CHALLENGES AND SOLUTIONS FOR THE WATER RESOURCES MANAGEMENT IN ROMANIA.* **Elena ȚUCHIU**

11:30 – 12:00 *APPLICATION OF THE SATELLITE SYSTEM OF THE EARTH'S GRAVITY FIELD MEASUREMENT FOR THE EVALUATION OF WATER BALANCE IN RIVER CATCHMENTS.* **Natalia FROLOVA, Vadim GRIGORIEV**

12:00 – 12:30 *ASSESSMENT OF THE SMOS AND SMAP SOIL MOISTURE PRODUCTS AGAINST TWO SPARSE IN SITU NETWORKS OVER ARID MOUNTAINOUS WATERSHEDS, NORTHWEST CHINA.* **Chansheng HE, Lanhui ZHANG, Mingmin ZHANG, Yi ZHU**

12:30 – 14:00 Lunch

4:00 – 16:00 Thematic sessions:

***Water resources variability in a changing environment and
Hydrological hazards and related risks management***

George Vâlsan amphitheater (3rd floor)

Chairpersons: Martina ZELENKOVA and Natalia FROLOVA

14:00 – 14:20 *RIVERS IN ROMANIA IN A GLOBAL CHANGE CONTEXT – CHALLENGES TO WATER SUSTAINABILITY.* **Dan BĂLTEANU, Viorel CHENDEȘ, Mihaela SIMA, Dana MICU, Constanța BORONEANȚ**

14:20 – 14:40 *COMPLEX ANALYSES OF WATER REGIME TRANSFORMATION WITH GRWAT-TOOL APPLICATION.* **Maria KIREEVA, Ekaterina RETS, Timopheï SAMSONOV, Natalia FROLOVA**

14:40 – 15:00 *CHANGE OF RUNOFF CONDITION BY URBAN AREA DEVELOPMENT.* **Martina ZELENKOVA, Katarina TOTHOVA**

15:00 – 15:20 *HYDROLOGICAL HAZARDS ON THE RIVERS AND COASTAL ZONE OF RUSSIAN ARCTIC.* **Natalia FROLOVA, Maria KIREEVA, Dmitry MAGRITSKY, Alexey SAZONOV**

15:20 – 15:40 *FLOODRISK GEOHISTORY: CONCEPTS, METHODS ET OPERATIONNALITY IN THE RHINE GRABEN.* **Brice MARTIN, Florie GIACONA, Rüdiger GLASER, Nicolas SCHOLZ, Amandine AMAT**

15:40 – 16:00 *INVESTIGATING THE TRENDS OF DROUGHT INTENSITY CHANGES IN IRAN.* **Peyman MAHMOUDI, Mahdi SANAEI, Nima DANESHMAND**

16:00 – 16:30 Coffee break

16:30 – 18:30 Thematic sessions:

***Human pressures and impacts on hydrosystems and water resources
Monitoring and sustainable water management
Poster session***

George Vâlsan amphitheater (3rd floor)

Chairpersons: Chansheng HE, Ivan ČANJEVAC and Ionuț MINEA

16:30 – 16:50 *THE VULNERABILITY OF WATER RESOURCES FROM EASTERN ROMANIA TO ANTHROPIC IMPACT AND CLIMATE CHANGE.* **Ionuț MINEA, Marina IOSUB, Oana-Elena CHELARIU**

16:50 – 17:10 *THE ROLE OF PHYSICAL GEOGRAPHERS IN THE ASSESSMENT OF ECOLOGICAL STATUS OF SURFACE WATERS IN CROATIA.* **Ivan ČANJEVAC**

17:10 – 18:10 Poster session

See the List of posters. About 5 minutes presentation of each poster by the author(s) in front of the poster

19:00 Gala dinner. Cercul Militar Național (National Army House), Bd. Regina Elisabeta, n° 20

Wednesday, 12th June 2019

Location: Faculty of Geography, University of Bucharest, Bd. Nicolae Bălcescu 1, Sector 1, Bucharest, *George Vâlsan* amphitheater (3rd floor)

9:00 – 10:00 Annual business meeting of the Commission for Water Sustainability (CWS)

All those interested in the Commission for Water Sustainability activity and to become membership are welcome.

Main points of the meeting agenda:

- Membership development,
- Publications/ book project,
- Glossary project,
- Session proposals for the 2020-meeting in Istanbul incl. possible field trip, Int Sci Council document (strategic discussion regarding types of research output, long-term research foci of CWS),
- CWS website,
- Future plans and suggestions,
- Miscellaneous

10:10 – 11:30 Thematic session: *Methodology in hydrological research: GIS, modelling, remote sensing*

Chairpersons: Alexey SAZONOV and Gheorghe ȘERBAN

10:10 – 10:30 *COMPLEX TECHNOLOGY FOR ON-LINE FORECASTING OF FLOODING IN THE URBAN TERRITORY.* **Alexey SAZONOV, Inna KRYLENKO, Natalia SEMENOVA, Evdokiia ZAVYALOVA**

10:30 – 10:50 *UAS, HEC-RAS & HEC-GeoRAS - LOW COST SOLUTIONS IN MOST VULNERABLE FLOODING AREAS HYDROLOGICAL MODELING - CASE STUDIES IN NORTH-EASTERN APUSENI MOUNTAINS AND EASTERN CARPATHIANS.* **Gheorghe ȘERBAN, Daniel SABĂU, Ioan RUS**

10:50 – 11:10 *MORPHOMETRY – LITHOLOGY – SEDIMENT LOAD RELATIONSHIPS BY MULTIVARIATE ANALYSES IN JIU RIVER BASIN.* **Gabriela MOROȘANU, Liliana ZAHARIA, Gabriela IOANA-TOROIMAC**

11:10 – 11:30 *HUMAN PRESSURES ON THE HYDROSYSTEMS AND IMPACTS ON THE FLOW REGIME. THE EXAMPLE OF THE ARGEȘ RIVER CATCHMENT (ROMANIA).* **Liliana ZAHARIA, Gabriela IOANA-TOROIMAC**

11:30 – 12:00 Conference closing

12:30 - 14:00 Lunch

15:00 – 18:00 Thematic application on Colentina River engineering, in open-air Village Museum (Bucharest)

LIST OF POSTERS

1. *THE DANUBE – HYDROGRAPHY, HYDROLOGY, NAVIGABILITY, MANAGEMENT.* **Petre GĂȘTESCU, Elena TOMA**
2. *THE ROLE OF PRECIPITATION IN THE SURFACE EROSION. CASE STUDY: THE BEICA RIVER CATCHMENT (ROMANIA).* **Dana Maria (OPREA) CONSTANTIN, Adrian TIȘCOVSCHI, Elena GRIGORE, Gabriela DÂRLOMAN, Emil CÎRCIUMARU**
3. *LOW WATER ON THE MOUNTAIN RIVERS OF THE REPUBLIC OF UZBEKISTAN.* **Natalia FROLOVA, Daniyar TURGUNOV, Fazliddin HIKMATOV, Alexey SAZONOV**
4. *PALEOLIMNOLOGICAL ASSESSMENT OF THE IMPACTS OF ANTHROPOGENIC ACTIVITIES ON FILDES PENINSULA, SOUTH SHETLAND ISLANDS, ANTARCTICA.* **Samuel YERGEAU, Dermot ANTONIADES**
5. *RIVER CHANNEL DEGRADATION AND HYDROLOGICAL CONSEQUENCE: A CASE STUDY IN THE CURVATURE SUBCARPATHIANS (ROMANIA).* **Gabriela IOANA-TOROIMAC, Liliana ZAHARIA, Gianina NECULAU**

6. *CROP VARIABILITY AND WATER USE EFFICIENCY UNDER RECENT CLIMATE AND LAND USE DYNAMICS IN THE ROMANIAN PLAIN, SOUTH ROMANIA – A SPATIALLY-EXPLICIT APPLICATION FOR MAIZE.* **Diana DOGARU**
7. *USING PYTHON FOR SIMPLE HYDROLOGIC ANALYSIS.* **Mihnea Cristian POPA, Mila CHILIKOVA-LUBOMIROVA, Daniel Constantin DIACONU**
8. *ESTIMATION OF HISTORICAL FLOOD CHARACTERISTICS USING VARIOUS MATHEMATICAL MODELS.* **Natalia SEMENOVA, Alexey SAZONOV, Inna KRYLENKO, Arseny AMERBAEV, Evdokiia ZAVYALOVA**
9. *WATER MANAGEMENT ON BOARD DISNEY CRUISE LINE COMPANY SHIPS: METHODS AND LEGISLATION.* **Valentina-Mariana MANOIU, Alexandru-Ioan CRACIUN**
10. *ASSESSMENTS OF GROUNDWATER QUALITY FROM THE TARGOVISTE PLAIN USING WATER QUALITY INDEX AND GIS ANALYSIS.* **Petre BREȚCAN, Dănuț TANISLAV, Cristiana RĂDULESCU, Mihaela SENCOVICI, Andra COSTACHE**
11. *WATER STATUS IN BUCHAREST DURING THE 19TH CENTURY: PRIVATE OR PUBLIC RESOURCE?* **Gabriela OSACI-COSTACHE, Octavian COCOȘ, Cristian IOJĂ, Gabriela IOANA-TOROIMAC, Robert STOICULESCU, Tudor DINU**

Thursday and Friday, 13th – 14th June 2019

Thematic field trip in Romanian Carpathians

Thursday, 13 June 2019

Main topic: human pressures on hydrosystems (the example of the Argeș watershed)

Itinerary (8:00 – 20:00): București – Pitești – Vidraru Dam – Curtea de Argeș – Câmpulung Muscel – the Bran - Rucăr corridor – accommodation in Bran (*Club Vila Bran*, <http://vilabran.ro/en/>).

Friday, 14 June 2019

Main topics: water related hazards and risks in mountainous area. Examples in: Brașov Depression, Bucegi Mountains and Upper Prahova Valley

Itinerary (8:00 – 20:00): Bran – Brașov –. Predeal - Sinaia – București.