



MONDAY, 17 September 2018

- 15:00-17:00 REGISTRATION
(Location: Faculty of Civil Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Level 2, Main Hall)
- 18:00-20:00 CONFERENCE OPENING**
(Location: University of Belgrade, Studentski trg 1, 11000 Belgrade, Level 3)
- 18:00 Jelena Luković and Piero Lionello: The MedCLIVAR 2018
- 18:10 Representative of the Serbian Government: Welcome Address
- 18:20 Ivana Cvijanović: "Through Distant Worlds and Times - the story of Milutin Milanković"
- 19:00 **Ice Breaker welcome reception**
(Location: University of Belgrade, Studentski trg 1, 11000 Belgrade, Level 1)

TUESDAY, 18 September 2018

- 07:30 REGISTRATION**
(Location: Faculty of Civil Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Level 2, Main Hall)
- 09:00-10:30 Session 1: The Mediterranean Regional Climate System** (Location: Main Hall, Level 2)
- 09:00 **Pierre Nabat (Invited): Aerosols and weather regimes over the Mediterranean: a coupled regional modeling approach**
- 09:30 Nadia Pinardi: The Mediterranean sea overturning circulation
- 09:45 Ivica Vilibić: The Adriatic-Ionian Bimodal Oscillating System (BIOS) and the Adriatic oceanography
- 10:00 Eftychia Rousi: Identifying remote drivers of Mediterranean rainfall using Machine learning and Causal discovery tools
- 10:15 Marianna Benassi: ENSO teleconnections over the Euro-Mediterranean region: The role of PDO modulation
- 10:30 Ivana Herceg Bulić: Detection of ENSO and NAO impacts on European region in a large ensemble of numerical simulations
- 10:45 **Coffee break (30')**
- 11:15 -13:00 Session 2: Past climate evolution of the Mediterranean region** (Location: Main Hall, Level 2)
- 11:15 **Eleonora Regattieri (Invited): Expression, frequencies and dynamics of sub-orbital scale variability during marine isotope stages 19: insights from the Sulmona basin (Central Italy)**
- 11:45 Slobodan Marković: The influence of Mediterranean climate on Southeastern Europe during the last five glacial-interglacial cycles
- 12:00 Michael Styllas: A new record of the late glacial and holocene glacial history of the Northeast Mediterranean mountains inferred from in situ produced ³⁶Cl cosmic ray exposure dating of paleo-glaciers deposits on Mount Olympus, Greece. Implications for the relative roles of external and internal climate forcing
- 12:15 Elena Xoplaki: Modeling climate and societal resilience in the Eastern Mediterranean during the last millennium
- 12:30 **Lucas Lourens (Invited): The Mediterranean plio-pleistocene: a reference frame for astronomically paced low and high latitude climate changes**
- 13:00 **Lunch break**
- 15:00-16:30 Parallel sessions**
- | Session 1 (Main Hall, Level 2) | Session 2 (Room141, Level 2) |
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| 15:00 Florence Sevault: A numerical simulation of the ERA-Interim period on the Mediterranean region with the regional climate system model CNRM-RCSM6 | Antonio Cascella: Last 2700 years paleoclimate history in the Southern Adriatic sea: Coccolithophore evidences |



- 15:15 Emilia Sanchez-Gomez: Impact of the internal variability on the cyclone tracks simulated by a Regional climate model over the Med-CORDEX domain
- 15:30 Annick Douguédroit: Modeling temperature distribution and recent warming along the Mediterranean coast and its mountains inland (out of the UHI: urban heat islands): the extreme South-Eastern French area case
- 15:45 Aleksandar Sekulić: Space-time interpolation of daily precipitation over Mediterranean area using random forest
- 16:00 Milena Menna (Invited): Decadal and climatic variability of the Ionian circulation
- 16:15 Asli Ilhan: Analysis of Cosmo-CLM sensitivity over Turkey
- Michael Grelaud: *Emiliana huxleyi* calcite mass variability during periods of rising atmospheric CO₂ in the Mediterranean sea

Session 6 (Main Hall, Level 2)

- Jose Lascurain: What emerged beach analysis can tell about the vulnerability of the whole system: Informing adaptation to climatic change on beaches of Catalonia, Spain
- Marina Baldi: Climatology of extreme rainfall events and the water harvesting potential in Egypt

16:30-18:00 POSTER Session/Beer Mix

(Location: Faculty of Civil Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Level 3)

- 1A- Gorica Stanojević: The influence of Mediterranean cyclones on precipitation distribution in Serbia
- 2A- Margarida L. R. Liberato: High-impact storms in Portugal: consistent catalogues of compound events
- 3A - Ivana Tošić: Is there any influence of the EA/WR pattern on precipitation over Mediterranean and Serbia?
- 4A - Ozcan Ceyhun: Wind-driven sensitivity analysis of Aegean sea coastal upwelling system using Regional Earth System Model (REGESM)
- 5A - Marco Reale: Assessment of RegCM-ES performances over the Med-CORDEX domain
- 6A- Hadas Saaroni: Automatic identification and classification of the Red sea trough
- 7A- Paolo Ruggieri: The sensitivity of Mediterranean winter to Siberian snow cover variability
- 8A- Matej Ogrin: Minimum temperatures in Slovenian Istria as the result of local climate impact
- 9A- Thomas Druge: Integration of an ammonium-nitrate aerosol module into the CNRM regional climate system model and estimation of their impacts over the Mediterranean Regional Climate
- 10A- Uwe Ulbrich: Sub-hourly precipitation over a western Mediterranean catchment in a convection-permitting model
- 11- Piero Lionello: The link between Mediterranean storm track and sea level anomalies along the Mediterranean coastline
- 12A- Alan Maria Mancini: Calcareous Nanno-fossils study reveals new paleoenvironmental and biostratigraphic insights at and prior the onset of the Messinian Salinity Crisis in the Sorbas basin
- 13A- Aurel Persoiu: Flood events in Transylvania during the Medieval warm period and the Little Ice Age
- 14A- Carla Taricco: $\delta^{18}O$ profile measured in the Central Mediterranean core CT 85-5 and the last deglaciation
- 15A- Francesca Lozar: Paleoenvironment conditions at the onset of the Messinian salinity crisis triggered calcareous Plankton size decrease
- 16A- Kazuyo Tachikawa: The past 23-kyr Eastern Mediterranean sea circulation inferred from Authigenic Nd Isotopes, foraminiferal stable isotopes and bulk elemental composition
- 17A- Alba González-Lanchas: High resolution study in Alboran sea (ODP 977) during the MIS 11: A Mid-Brunhes Event interpretation perspective based on coccolithophores
- 18A- Lucia A. Azibeiro: Western-Eastern Mediterranean freshening during termination V
- 20A- Mercè Cisneros: Climatic evolution of the last 2700 years in the Balearic sector: Integrated study of cave and marine records



- 21A- Mary Athanasiou: Early-middle Miocene paleoclimatic reconstruction in the Eastern Mediterranean: Kottaphi Hill section, Cyprus island
- 22A- Piero Lionello: Comparing the simulated Mediterranean climate in different conditions: Last glacial maximum, Mid-Holocene and the RCP8.5 projection at the end of the 21st century
- 23A- Giannis Sofiadis: Climatic impact of an extreme land cover change scenario on the Mediterranean basin
- 24A- Yael Amitai: Past millennium Mediterranean climate from vermetid SST proxies and CMIP5 models

WEDNESDAY, 19 September 2018

08:00 REGISTRATION

(Location: Faculty of Civil Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Level 2, Main Hall)

09:00-10:45 Session 3: Assessment of climate change in the Mediterranean region and climate projections (Location: Main Hall, Level 2)

- 9:00 **Douglas Maraun (Invited): Inferring information on future changes in regional precipitation extremes by means of dynamical and statistical modeling**
- 9:30 Damià Gomis Bosch: Projections of Mediterranean heat and salt content evolution during the XXI century based on MedCORDEX AORCMS and a simple box-model
- 9:45 Natalija Dunić: Present and future climate and variability of the Adriatic dense water formation and the BIOS: Assessment of climate models
- 10:00 George Zittis: A multi-model, multi-scenario and multi-domain analysis of Regional climate projections for the Mediterranean
- 10:15 Radan Huth: Collective statistical significance and its relevance for climate change detection in the Mediterranean
- 10:30 Isla Simpson: The influence of uncertainty in the northern hemisphere stratospheric polar vortex response to climate change on future projections of Mediterranean hydroclimate
- 10:45 **Coffee break (30')**
- 11:15 Samuel Somot: Future evolution of the western Mediterranean deep water formation under climate change: a coupled high-resolution multi-model approach
- 11:30 Ivana Marinović: "Observed and projected changes in the dry spells" statistics over Croatia

11:45-13:00 Session 4: Climate extremes and hazards in the Mediterranean region under a changing climate (Location: Main Hall, Level 2)

- 11:45 Enrico Arnone: Elevation dependent change of climate extremes in XXI century model projections: A Mediterranean perspective
- 12:00 Ricardo Trigo: The combined use of NDVI and SPEI to assess drought impacts on vegetation activity in the Mediterranean
- 12:15 Yasemin Ezber: Role of the strength of the east Asian trough on the temperature variability over the Eastern Mediterranean
- 12:30 **Alexandre M. Ramos (Invited): The role of ARS in two contrasting Mediterranean climate regions: Iberian peninsula and Cape Town province in South Africa**
- 13:00 **Lunch break**

15:00-16:30 Parallel sessions

- | | Session 1 (Room 141, Level 2) | Session 3 (Main Hall, Level 2) |
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| 15:00 | Adi Etkin: Structure of the rainy season in Israel: existence of modes and a mid-winter minimum | Christian Merkenschlager: Regional assessments of heavy rainfall events in the Mediterranean area for the 21 st century |
| 15:15 | Yael Amitai: The effect of wind-stress over the Eastern Mediterranean on deep-water formation in the Adriatic sea | Laurent Li: Recent updates of LMDZ/NEMO-MED8 and its application in an ensemble of climate change simulations for the Mediterranean region |



Session 4 (Room 141 Level 2)

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| 15:30 | Jelka Krušić: Densifying the rainfall data for the landslide hazard assessment | Bariş Onol: Evaluation of multi-model and multi-domain ensemble simulations based on CORDEX initiative over Turkey |
| 15:45 | Maria Carmen Llasat: Trend on convective precipitation and floods in the Spanish Mediterranean region | Mojca Dolinar: Assessment of climate variability and trends over Slovenia in the period 1961-2011 |
| 16:00 | Dhib Saoussen (YS grant): Comparison of five satellite rainfall estimates algorithms with rain gauge data over northern Tunisia | Mirko Orlić: Multidecadal variability of the Mediterranean sea level |
| 16:15 | Evangelos Tyrlis: The key role of blocking in driving the cold spells over Southeastern Europe in winter 2016 - 2017 | Emilia Sanchez-Gomez: Assessing the climate impacts of the Atlantic multidecadal variability on the Mediterranean basin |

16:30-18:00

POSTER Session/Beer Mix

(Location: Faculty of Civil Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Level 3)

- 1B- Marco Reale: Modeling approaches to Ionian upper layer dynamics
- 2B- Pedro M. Sousa: Changes in precipitation regimes since 850 A.D.: The role of the integrated water vapor transport and global warming
- 3B- Styliani Kyrikou: Vegetation history of lakes Ohrid and Prespa and reconstructed climate variability over the last 17000 years
- 4B- Elisavet Skampa: Coupling plankton-sediment trap-surface sediment and the fossil record for the detection of EMT-like events: A case study from the north Aegean sea (NE Mediterranean)
- 5B- Laurence Vidal: Historical and paleo-hydrological changes recorded from Moroccan middle Atlas lakes inferred from sedimentological and geochemical approaches
- 6B- Ascanio Luigi Scambiati: The relation between the global Hadley circulation and the climate in the Mediterranean region
- 7B- Cécile Caillaud: Simulation of past climate variability of high precipitation events in French Mediterranean using convection-permitting model at climate scale
- 8B- Jelena Luković: Spatial pattern of recent rainfall trends in Montenegro 1951-2010
- 9B- Mojca Dolinar: Projected changes of temperature and temperature related extremes for Slovenia over the 21st century
- 10B- Martin Dubrovsky: Simulation of present and future spatial compound events in Mediterranean "weather generator vs. Regional climate models"
- 11B- Matilde García-Valdecasas Ojeda: Assessing land-surface variables using the WRF-NOAH over the Iberian peninsula
- 12B- Mirjana Ruml: Temperature trend analysis during the growing season and dormancy in Serbia (1961-2010)
- 13B- Piero Lionello: Different impacts of global warming between north and south Mediterranean areas
- 14B- Renato Bertalanich: Projected changes of precipitation and extreme precipitation events for Slovenia over the 21st century
- 15B- Mehmet Bariş Kelebek: Combined effects of temperature and precipitation extremes based on climate extremes index over Europe
- 16B- Melita Perčec Tadić: Improving spatio-temporal interpolation of daily precipitation using parallelized machine learning and precipitation derived from MSG
- 17B- Matilde García-Valdecasas Ojeda: Near and far future changes in extreme temperatures over the Iberian peninsula
- 18B- Panos Hadjinicolaou: Differential 20th and 21st century warming around the Mediterranean and the greater Middle East
- 19B- Renato Bertalanich: Project OPS21: the assessment of the average and extreme meteorological and hydrological conditions in Slovenia over the 21st century
- 20B- Miri Kupermintz: Climatic factors controlling the growth of deciduous fruit trees in Israel and the assessment of potential changes in the future, using the COSMO models
- 21B- Angela Pomaro: Local measurements and model wave data: complementary elements for large-scale climate assessment
- 22B- Alexandros Papaioannou: A 300 years old high resolution palaeoenvironmental record from the Gulf of Elefsis, Attica, South Greece
- 23B- Milica Lukic: Variability of the UTCI index in Serbia
- 24B- M. Turco: Climate change impacts on summer fires in Mediterranean Europe

19:30-21:00

Official Dinner at Kalemegdanska Terasa Restaurant (plus Young Researcher Award)

(Location: Kalemegdan Park, Fortress at Mali Kalemegdan, 11000 Belgrade)

<http://kalemegdanskaterasa.com/en/contact>



THURSDAY, 20 September 2018

08:00 REGISTRATION

(Location: Faculty of Civil Engineering, Bulevar Kralja Aleksandra 73, 11000 Belgrade, Level 2, Main Hall)

09:00-10:45 Session 5: Past, Present and Future change of Mediterranean-type climates (Location: Main Hall, Level 2)

09:00 **Giuseppe Zappa (Invited): The importance of remote drivers of atmospheric circulation for the Mediterranean hydro-climate response to climate change**

09:30 **John Chiang (Invited): Subtropical jets and rainfall over Chile and western US in response to paleoclimate forcings**

09:45 Ivana Cvijanović: Can future sea ice cover changes affect precipitation over California?

10:00-11:45 Session 6: Societal impacts of climate change in the Mediterranean region (Location: Main Hall, Level 2)

10:00 **Steven Van Passel (Invited): What if policy does not leverage climate change adaptive capacity? A cross-sectional analysis on European farmers**

10:30 Anil Markandya: Responding to climate variability and climate change: two case studies from the Mediterranean

10:45 **Coffee break** (30')

11:15 Claudia Wolff: Using a coastal urban change model to develop spatially explicit urbanization scenarios for the Mediterranean

11:35 Christos Giannakopoulos: Evaluation of various bias correction methods for Mediterranean agro-climate projections: first results from the med-gold project

11:45-13:00 Session 7: Climate Services in the Mediterranean regions (Location: Main Hall, Level 2)

11:45 Anastasia Panenko: Climate services: what is the current state of art?

12:00 Matteo Zampieri: Climate impacts on Mediterranean crops, adaptation measures and the med-gold project

12:15 Uwe Ulbrich: Bringing INnovation to onGOing water management (BINGO)

12:30 **Carlo Buontempo (Invited): Recent development at the Copernicus climate change service**

13:00 **Lunch break**

15:00-16:30 Parallel sessions

Session 4 (Room 141, Level 2)

15:00 Ana Iglesias: Adapting agriculture to climate change: More realistic evaluations need to take account spatial differences in the people-climate interactions

15:15 Mohamed Said: Spatial variations of sea level along the Egyptian Mediterranean coast

15:30 Stella Dafka: Estimation of the mid and late century extreme summer winds over the Eastern Mediterranean from EURO-CORDEX models

Session 3 (Room 141, Level 2)

15:45 Toni Barrera-Escoda: 1-km climate projections for Catalonia based on statistical downscaling from CMIP5 models

16:00 Pedro M. Sousa: Increasing impacts of Euro-atlantic blockings and sub-tropical ridges in the Mediterranean area

16:15 Renato Bertalanič: Project OPS21: The assessment of the average and extreme meteorological and hydrological conditions in Slovenia over the 21st century

Session 5 (Main Hall, Level 2)

Richard Seager: Climate variability and change in Mediterranean-type climates

Jelena Luković: Seasonal shifts in the Mediterranean type climates

Vicent Altava-Ortiz: Changes in recent synoptic meteorological patterns in a North-western Mediterranean in comparison with 1871-1980 climate variability

Session 7 (Main Hall, Level 2)

Andrej Ceglar: PANNEX: The Pannonian Basin experiment

Christos Giannakopoulos: Life ADAPT2CLIMA tool: a decision support tool for adaptation to climate change impacts on the Mediterranean islands agriculture

Prodromos Zanis: An online web application tool for regional climate data extraction: DEAR-Climate



16:30-18:00 **POSTER Session/Beer Mix**

- 1C-Ana Russo: Droughts feedback on summer hot days and nights over the Mediterranean
- 2C-Elena Vyshkvarkova: Changes in extreme precipitation regime in the Black Sea region (The south of Russia)
- 3C-Danica Ćirić: The contribution of the Mediterranean Sea to extreme precipitation events over the Danube River basin
- 4C-Mohammed Said Karrouk: Climate change, "new meridian atmospheric circulation" and extreme precipitation causing floods in Western Mediterranean
- 5C-Saoussen Dhib: Rainfall estimation over Northern Tunisia by combining MSG cloud top temperature and TRMM-TMI rain rates
- 6C-Milica Stojanović: Variations in the moisture transport from the Mediterranean Sea during the meteorological drought episodes over Central Europe
- 7C-Nadia Politi: WRF forecasting capability of a tropical-like cyclone in the Ionian Sea
- 8C-Sanja Manojlović: Water and sediment discharge variability for the period 1961-2010 case study: Nišava river, Eastern Serbia
- 9C-Lena Reimann: UNESCO world heritage at risk from coastal flooding in the Northern Adriatic Sea "comparison of inundation modeling approaches"
- 10C-Anil Markandya: Vulnerability to climate variability and change: case studies from Tunisia and Croatia
- 11C-Anastasia Bleta: Biometeorological conditions related to respiratory admissions in Crete island, Greece
- 12C-Konstantina Pyrgaki: Assessing groundwater quality of CR(VI) impacted water bodies along climate gradient from Central-East Mediterranean to Oman
- 13C-Piero Lionello: Combining coastal morphology, exposure and hazard for discussing future risks posed by marine storminess along the Mediterranean coastline
- 14C-Andreia Ribeiro: Joint probability of droughts and wheat yield anomalies in Iberia
- 15C-Mari Carmen Álvarez-Castro: Dynamical proxies as a tool for Mediterranean seasonal forecast
- 16C-Jost von Hardenberg: Stochastic precipitation downscaling in complex orography for climate service applications
- 17C-Maria-Chara Karypidou: Building data value chains: from climate data production to impacts. The example of climate-sensitive vector-borne diseases
- 18C-Marijana Pantić: Participatory approach for innovation in spatial planning process in the context of climate change in Serbia
- 19C-Jovan Mihajlović: Tornadic waterspout event in Tivat (Montenegro), June 9, 2018-Case study
- 20C- Ljubica Duškov: Climate change vulnerability assessment for Natural Resources-Example of the Raška Administrative District
- 21C-J Gilabert: Vulnerability assessment in urban areas in front of climate change using Local Climate Zones
- 22C-Elena Tadić: Nature Based Solutions in the Mediterranean region- governance and social impacts
- 23C-David Barriopedro Cepero: The European Mega-heatwave of June 2017



FRIDAY, 21 September 2018

09:00-10:45 Panel discussion and key note talks (Location: Main Hall, Level 2)

Samuel Somot: Recent climate modelling efforts in the Mediterranean region

Damià Gomis: Mediterranean marine climate change scenarios: impacts on the coastal areas

10:45 **Coffee break** (30')

11:15-12:30 Panel discussion and key note talks (Location: Main Hall, Level 2)

Ana Iglesias: Impacts of climate change on the Mediterranean agricultural sector

Hadas Saaroni and Maria Carmen Llasat: Climate change, urban climate in Mediterranean cities and its environmental implications

12:30-13:00 Poster Awards, MedCLIVAR 2020, CONFERENCE CLOSURE