WORKSHOP PROGRAM

MONDAY 16 OCTOBER 2017

10h30: Introduction (Y. Tramblay)

10h45: The Montpellier Institute for Water and Environment (IM2E) to promote interdisciplinary research (E. Servat)

11h00: Presentation of the Mediterranean Integrated STudies at Regional And Local Scales (MISTRALS) program (C. Moulin)

11h30: Presentation of the Mediterranean Experts on Climate and Environmental Change (MedECC) initiative (W. Cramer)

12h00-14h00: Lunch break

SESSION 1 - Interaction between climate and impact models (conveners: F. Guilhaumon, F. Mouillot, N. Martin, L. Jarlan)

14h00: Investigating uncertainties in zooplankton composition shifts under climate change scenarios in the Mediterranean Sea (F. Benedetti) - *solicited*

14h30: Uncertainty propagation in the assessment of climate change impact on runoff (D. Ruelland) – *solicited*

15h00: Climate change impact on wildfire danger indices: where do the greatest uncertainties lie? (H. Fargeon)

15h15: Impacts of climate change on extreme discharge in France using climate projections in the SHYREG method (D. Organde)

15h30: The highest uncertainty in the modelling chain for forest impact is located between GCM and RCM (N. Martin)

15h45-16h30: Coffee break and poster session

16h30: Climate change on the Mediterranean Sea: from physical changes to ecosystems' consequences. Applicability and limitations of current-generation numerical models (D. Macias-Moy) – *solicited*

17h00: Likelihood of changes in forest species suitability, distribution and diversity under future climate: the case of Southern Europe (S. Noce)

17h15: Towards the prediction of large wildfire occurrence from synoptic circulation patterns (J. Ruffault)

17h30: Challenges in simulating the impact of climate change on snow cover in Mediterranean mountain regions (S. Gascoin)

17h45: Mediterranean biogeochemistry evolution under the A2 climate change scenario simulated with the coupled NEMOMED8/PISCES model (C. Richon)

18h00: Effect of future rainfall changes on faecal indicator bacteria inputs to Mediterranean coastal waters: case study of the bay of Aigues-Mortes, France (M. Rio)

19h30: Ice breaker at the BG restaurant (http://www.bg-restaurant.fr/), 180 Rue De Galata, Montpellier, (Tramway stop 'Port Marianne', Line 1)

TUESDAY 17 OCTOBER 2017

SESSION 2 - Climate change modelling (conveners: S. Somot, R. Cheddadi, E. Coppola, L. Li, F. Solmon)

9h00: Convection-permitting Med-CORDEX regional climate model simulation (E. Brisson)

9h15: Temporal and spatial aspects of 20th and 21st century warming in the Mediterranean (P. Hadjinicolaou)

9h30: Regional climate chemistry interactions and modelling in the Mediterranean region (F. Solmon)

9h45: Climate sensitivity of different organic aerosol schemes over the Mediterranean basin (A. Cholakian)

10h00-11h00: Coffee break and poster session

11h00: Overview of future climate change over Mediterranean land area and future challenges (F. Giorgi) - *solicited*

11h30: Challenges and future avenues when reconstructing the past and predicting the future geographic distribution of rare plants in the Mediterranean Alps under changing climates (C. Randin) - solicited

12h00: Robust assessment of the Mediterranean Sea future evolution using the Med-CORDEX RCSM multi-model ensemble: illustration for the Marine Heat Waves (S. Somot)

12h15: Climate change impacts on extreme rainfalls, discharges and floods in Mediterranean catchments (A. Colmet-Daage)

12h30-14h00 Lunch break

14h00: Overview of paleo-climate modelling for the Mediterranean climate and future challenges (J. Guiot) - *solicited*

14h30: Moroccan hydroclimate variability during the last Millennium (Y. Ait Brahim)

14h45: Modelling lake level and isotopic composition variations over the last century in the Moroccan Middle Atlas (C. Vallet-Coulomb)

SESSION 3 - Downscaling approaches (conveners: J. Carreau, B. Hingray, M. Turco, J-P. Vidal)

15h00: Statistical downscaling and bias correction of climate simulations: Main findings of the StaRMIP project (M. Vrac) - *solicited*

15h30: An assessment of daily topo-climatic air temperatures for climate downscaling and impact studies on forest functionning: example in Northern Tunisia and Cevennes, France (F.Mouillot)

15h45-16h45: Coffee break and poster session

16h45: Transferability of an ensemble downscaling method across time periods and predictor datasets (J-P. Vidal)

17h00: A non-stationary spatial weather generator for statistical downscaling of precipitation (P. Vaittinada Ayar)

17h15: Statistical Downscaling of EURO-CORDEX future climate scenarios: Projections of droughts, heavy precipitation, heat waves and cold spells (M.F. Cardell)

17h30: Meteoland: An R package to estimate daily meteorological data over landscapes (M. De Cáceres)

17h45-18h30: *Round table 1; Impact studies in MISTRALS programs, how to promote interdisciplinarity? (chairs : Y. Tramblay, E. Coppola)*

WEDNESDAY 18 OCTOBER 2017

9h00: Using empirical-statistical downscaling to quantify climate change impacts (R. Benestad) – *solicited*

9h30: Advances in multivariate bias correction of climate model projections (C. Piani) – *solicited*

SESSION 4 - Pluridisciplinary approaches for impact assessment (conveners: M. Zribi, M. Montginoul, Y. Shin)

10h00: Can we use MED-CORDEX simulations for energy applications? (P. Drobinky) – *solicited*

10h30-11h00: Coffee break and poster session

11h00: Impacts of aerosols in photovoltaic energy production in the Mediterranean area for climate time scales (C. Gutiérrez)

11h15: Warming trends and extreme events analysis from high resolution observations in Mediterranean coastal areas: insights for the assessment of coastal ecosystems vulnerability to climate change (N. Bensoussan)

11h30: Climatic and socio economic fire drivers in the Mediterranean basin at a century scale: Analysis and modelling based on historical fire statistics (N. Koutsias)

11h45: Impacts of recurring extreme climatic events on societies and landscapes in Provence and Southern French Alps in the 18th century: a comparative analysis (N. Maughan)

12h00: Climate change impacts on groundwater resources in South France (Y. Caballero)

12h15: Catch the big picture of the Mediterranean Sea with the End-to-End NEMOMED12/Eco3M-S - OSMOSE model (F. Moullec)

12h30-14h00 Lunch break

14h00: The governance of groundwater resources in Tunisia facing the challenge of decentralization (M. Elloumi) – *solicited*

14h30: Modeling and scenaring fragilized agrosystems in the south-Mediterranean area. The example of the Tensift (Morocco) and Merguellil (Tunisia) watersheds (M. Le Page) – *solicited*

15h00-16h30: *Final discussion: Climate change impacts in the Mediterranean region: new results, uncertainties and research needs (Chairs : C. Piani, C. Randin, S. Somot, N. Martin, M. Zribi, J. Carreau)*

Posters (main hall)

Poster location	Presenter	Session	Title
A1	Marta Debolini	Pluridisciplinary approaches for impact assessment	Mediterranean land systems characteristics and dynamics
A2	Pairaud Ivane	Pluridisciplinary approaches for impact assessment	Impacts of climate change on coastal benthic ecosystems in the NW Mediterranean Sea: potential risk of mortality from field, laboratory and numerical experiments
A3	Maria Carmen Llasat	Pluridisciplinary approaches for impact assessment	Flood trends in the Mediterranean coast: Application of a multifactorial analysis in the NE of Spain
A4	Fakir Younes	Pluridisciplinary approaches for impact assessment	Potential impacts of climate change on groundwater in a heavily anthropogenic plain under semi-arid climate (Haouz, Tensift, Morocco)
A5	Saqalli Mehdi	Pluridisciplinary approaches for impact assessment	Land, rain and sweat: Building a database of what we need for building a temporally dynamic and a spatially-explicit agent-based model of Neolithic occupation in Languedoc-Roussillon.
A6	Lespez Laurent	Pluridisciplinary approaches for impact assessment	Climate change and social transformations in the past: from field data acquisition towards socio-ecological modeling
A7	Lestienne Marion	Pluridisciplinary approaches for impact assessment	Holocene fire regimes quantification and modelling in Mediterranean ecosystems
A8	Revel Marie	Pluridisciplinary approaches for impact assessment	20,000 Years of Multidecadal Nile flood intensity variability inferred from organic and inorganic proxies
A9	Leredde Yann	Pluridisciplinary approaches for impact assessment	Impact of storms and floods episodes on primary production in an exploited coastal zone (Thau lagoon, south of France). Coupled hydrodynamic-biogeochemistry modelling approach.
A10	Dahmani Abd El Alim	Pluridisciplinary approaches for impact assessment	Monitoring and evolution of hydrodynamic parameters by the coupling of physical and numerical models: application to the monitoring of coastal zones of the Algerian basin
A11	Zribi Mehrez	Pluridisciplinary approaches for impact assessment	Assessment of changes in MEdiTerranean HYdro-resources in the South: river basin Trajectories (AMETHYST)
A12	Boulet Gilles	Pluridisciplinary approaches for impact assessment	Vulnability of rainfed olive trees to changing climatic conditions: characterization of the thermohydric functioning and in-situ remote sensing drought monitoring
B1	E. Bouras	Interaction between climate and impact models	Impact of climate change on wheat yields and irrigation water supply in the South Mediterranean: Case study in the Tensift region (Morocco)
B2	Pongracz Rita	Interaction between climate and impact models	Combined use of dynamical and statistical downscaling in hydrological simulations driven by regional climate model outputs
B3	Goncalves Julio	Interaction between climate and impact models	Recharge and paleo-recharge assessment of the Saharan Aquifers System and the Djeffara: sustainability of the groundwater resource under climatic and anthropic stress.
B4	Simonneaux Vincent	Interaction between climate and impact models	Simulating the impact of climate and land cover changes on erosion in a mountainous mediterranean watershed (Rheraya, Morocco).

B5	Filahi Said	Interaction between climate and impact models	Projected changes in temperature and precipitation indices in Morocco from high-resolution regional climate models
B6	Zkhiri Wiam	Interaction between climate and impact models	Spatial and temporal characterization of current and future droughts in the High-atlas basins in Morocco
B7	Hadjou Belaid Asma	Interaction between climate and impact models	Impacts of climate changes on the viability of the endemic Mediterranean plant species Centaurea corymbosa
C1	Didier Organde	Downscaling approaches	Impacts of climate change on extreme discharge in France using climate projections in the SHYREG method
C2	Vidal Jean-Philippe	Downscaling approaches	SCOPE Climate: a high-resolution ensemble meteorological downscaling of the Twentieth Century Reanalysis over France from 1871 to 2012
C3	Huard Frederic	Downscaling approaches	Spatiotemporal disaggregation of precipitations futures projections based on statistic downscaling and analogs method using data from hydrometeorological radar
C4	Mathlouthi Majid	Downscaling approaches	Characterization of extreme dry events and adaptation measures in northern Tunisia
D1	Taibi Sabrina	Climate change modelling	Monthly rainfall variability simulated by MED-CORDEX regional climate models on Algiers Coastal basin in past and future climate conditions
D2	Zittis George	Climate change modelling	Effect of nudging in regional hydro-climatic simulations for the eastern Mediterranean
D3	Xueref-Remy Irène	Climate change modelling	Regional modeling : towards an atmospheric CO2 observatory in the PACA region
D4	Bassetti Maria-Angela	Climate change modelling	Holocene hydrological changes of Rhone river (NW Mediterranean) recorded in the marine mud belt.
D5	Sicre Marie-Alexandrine	Climate change modelling	Towards a better evaluation of the past spatio-temporal variability of the Mediterranean climate from proxy records and to linking with human society trajectories (PaleoMeX)
D6	Combourieu-Nebout Nathalie	Climate change modelling	Precipitation changes in the Mediterranean basin during the Holocene from terrestrial and marine pollen records: A model/data comparison
D7	Pongracz Rita	Climate change modelling	Comparison of hydrostatic and non-hydrostatic regional climate model simulations for the central northern part of the MedCORDEX region
D8	Rahmouni Thami	Climate change modelling	Etude de la variabilité climatique et l'analyse de la phénomène hydrologiques dans un bassin versant : bassin du Dradère-Souière-Maroc.
D9	Dezileau Laurent	Climate change modelling	Extreme storm periods and climate forcing in the Western Mediterranean during the 7000 years.
D10	Fumiere Quentin	Climate change modelling	Climate change and extreme rainfall : added value of models reproducing convection
D11	Bastian Luc	Climate change modelling	Impact of Heinrich stadials on North-East Africa soils during the Late Quaternary
D12	Druge Thomas	Climate change modelling	Integration of nitrate aerosols into the CNRM regional climate system model and estimation of their radiative forcing over the Mediterranean region