

Fourth Workshop on Water Resources in Developing Countries: Hydroclimate Modeling and Analysis Tools | (smr 3125)

Monday, 12 June 2017

08:15 - 09:45 Registration and payment formalities: Registration at venue - ATTENTION ONLY for ALL Faculty and for those participants who are NOT staying in the ICTP Guest Houses- Paid participants registered in the guest houses need to go DIRECTLY (with passport!) 1st to Operations office FERMI Building: Monday, Tuesday, Friday 8:30-12:00 and 13:30 - 14:30 and 2nd to UNICREDIT BANK branch on ICTP campus, Fermi Building, open only on Mondays and Fridays 8:20 to 13:20 and from 14:30 to 16:00

09:45 - 19:30

- 09:45 **Welcome - opening 15'**
- 10:00 **Hydrological modeling requirements for Water Resources Applications- Model Calibration and parameter Estimation Issues 45'**
Speaker: S. Sorooshian (Un. California, Irvine)
- 10:45 **coffee break 30'** (AGH terrace)
- 11:15 **A Global High-resolution Hydrological Model for Monitoring and Flood Forecasting 45'**
Speaker: E. Todini (Un. Bologna)
- 12:00 **Hydrological Modeling Requirements - Data Issues and potential for use of Satellite Observations 45'**
Speaker: S. Sorooshian (Un. of California, Irvine)
- 12:45 **lunch break 1h30'** (AGH cafeteria)
- 14:15 **Lab session on CHyM hydrological modelling 1h30'** (Adriatico Guest House - Informatics Laboratory)
Speaker: Verdecchia / Di Sante (Un. of L'Aquila / ICTP)
- 15:45 **coffee break 30'**
- 16:15 **Lab session on CHyM hydrological modelling 1h45'** (Adriatico Guest House - Informatics Laboratory)
- 18:00 **ice breaker drink 1h0'** (AGH terrace)

all participants are invited

Tuesday, 13 June 2017

09:00 - 21:30

- 09:00 **Can meteorological ensembles be usefully used in water resources management? 1h0'**
Speaker: E. Todini (Un. Bologna)
- 10:00 **coffee break 30'** (AGH Terrace)
- 10:30 **Distributed hydrologic modeling using satellite precipitation 1h0'**

Speaker: Phu Nguyen (Un. of California)

11:30 **Introduction to empirical statistical downscaling, bias correction and weather generators 1h0'**

Speaker: D. Maraun (Wegener Center)

12:30 **lunch break 1h30'** (AGH cafeteria)

14:00 **Lab session on empirical statistical downscaling, bias correction and weather generators 1h30'** (Adriatico Guest House - Informatics Laboratory)

Speaker: D. Maraun (Wegener Center)

15:30 **coffee break 30'** (AGH terrace)

16:00 **Lab session on empirical statistical downscaling, bias correction and weather generators 2h0'**

Speaker: D. Maraun (Wegener Center)

19:30 **faculty dinner 2h0'** (external)

invited lecturers

Wednesday, 14 June 2017

09:00 - 18:00

09:00 **Evaluating downscaling results and regional climate projections 1h0'**

Speaker: D. Maraun (Wegener Center)

10:00 **coffee break 30'** (AGH terrace)

10:30 **Response of the hydrological cycle to the global warming 45'**

Speaker: F. Giorgi (ICTP)

11:15 **The right ingredient for hydroclimate modelling: an overview of the ICTP activity 45'**

Speaker: E. Coppola (ICTP)

12:00 **Hydrology considerations in health 45'**

Speaker: A. Tompkins (ICTP)

12:45 **lunch break 1h15'** (AGH cafeteria)

14:00 **Lab session on empirical statistical downscaling, bias correction and weather generators 1h30'**

Speaker: D. Maraun (Wegener Center)

15:30 **coffee break 30'** (AGH terrace)

16:00 **Lab session on CHyM hydrological modelling 2h0'** (Adriatico Guest House - Informatics Laboratory)

Speaker: Verdecchia / Di Sante (Un. of L'Aquila / ICTP)

Thursday, 15 June 2017

09:00 - 21:00

09:00 **Climate Change Impacts on the Hydrology of Mediterranean Basins - Reducing Uncertainty and Quantifying Risk 1h0'**

Speaker: R. Ludwig (Ludwig Maximilian Un. Munich)

10:00 **coffee break 30'** (AGH terrace)

10:30 **CHyM hydrological modelling for flood alert mapping applications 1h0'**

Speaker: M. Verdecchia (Un. of L'Aquila)

11:30 **The implementation of the hydrological model CHyM in the new earth system model RegCM-ES 45'**

Speaker: F. Di Sante (ICTP)

- 12:15 **lunch break 1h45'** (AGH cafeteria)
- 14:00 **Lab session on CHyM hydrological modelling 1h30'** (Adriatico Guest House - Informatics Laboratory)
Speaker: Verdecchia / Di Sante (Un. of L'Aquila / ICTP)
- 15:30 **coffee break 30'** (AGH terrace)
- 16:00 **Lab Session on Hands-on tutorial on UCI CHRS's satellite precipitation data and tools 2h0'** (Adriatico Guest House - Informatics Laboratory)
Speaker: Phu Nguyen (Un. of California , Irvine)
- 19:00 **reception dinner 2h0'** (AGH terrace)

all participants are invited

Friday, 16 June 2017

09:00 - 18:00

- 09:00 **Assessing Hydrometeorological Extreme Events under Climate Change Conditions 1h0'**
Speaker: R. Ludwig (Ludwig Maximilian Un. Munich)
- 10:00 **coffee break 30'** (AGH terrace)
- 10:30 **A review of hydrological modelling studies for climate application: what we know and we can do so far 30'**
Speaker: L. Mariotti (OGS)
- 11:00 **How to deal with raw station data for hydrological modelling purposes 30'**
Speaker: A. Fantini (ICTP / Un. Trieste)
- 11:30 **An example of CHyM hydrological modelling for flood maps production: a case study done for the ALLIANZ insurance company 1h0'**
Speaker: Nogherotto / Raffaele (ICTP / ICTP)
- 12:30 **lunch break 1h30'** (AGH cafeteria)
- 14:00 **Lab session on CHyM hydrological modelling 1h30'** (Adriatico Guest House - Informatics Laboratory)
Speaker: Verdecchia / Di Sante (Un; L'Aquila / ICTP)
- 15:30 **coffee break 30'** (AGH terrace)
- 16:00 **Lab Session on Hands-on tutorial on distributed hydrologic modeling using PERSIANN-CDR satellite precipitation 2h0'** (Adriatico Guest House - Informatics Laboratory)
Speaker: Phu Nguyen (Un. of California, Irvine)

Monday, 19 June 2017

09:00 - 18:00

- 09:00 **title tbc 30'**
Speaker: D. Gampe (Ludwig Maximilians Un. Munich)
- 09:30 **Lab session 1h0'** (Adriatico Guest House - Informatics Laboratory)
Speaker: D. Gampe (Ludwig Maximilians Un. Munich)
- 10:30 **coffee break 30'** (AGH terrace)
- 11:00 **Lab Session 1h30'**
Speaker: D. Gampe (Ludwig Maximilians Un. Munich)
- 12:30 **lunch break 1h30'** (AGH cafeteria)
- 14:00 **Lab session on CHyM hydrological modelling 2h0'**

Speaker: Verdecchia / Di Sante (Un. L'Aquila / ICTP)

16:00 **coffee break 30'** (AGH terrace)

16:30 **Lab session on CHyM hydrological modelling 1h30'** (Adriatico Guest House - Informatics Laboratory)

Speaker: Verdecchia / Di Sante (Un. L'Aquila / ICTP)

Tuesday, 20 June 2017

09:00 - 18:00

09:00 **Participants presentation 1h0'**

10:00 **coffee break 30'** (AGH terrace)

10:30 **Lab session on CHyM hydrological modelling 2h0'**

Speaker: Verdecchia / Di Sante (Un. L'Aquila / ICTP)

12:30 **lunch break 1h30'** (AGH cafeteria)

14:00 **Lab session on CHyM hydrological modelling 2h0'** (Adriatico Guest House - Informatics Laboratory)

Speaker: Verdecchia / Di Sante (Un. L'Aquila / ICTP)

16:00 **coffee break 30'**

16:30 **Lab session on CHyM hydrological modelling 1h30'**

Speaker: Verdecchia / Di Sante

Wednesday, 21 June 2017

09:30 - 18:00

09:30 **participant presentation 30'**

10:00 **coffee break 30'** (AGH terrace)

10:30 **Lab session on CHyM hydrological modelling 2h0'** (Adriatico Guest House - Informatics Laboratory)

Speaker: Verdecchia / Di Sante

12:30 **lunch break 1h30'** (AGH cafeteria)

14:00 **Lab session on CHyM hydrological modelling 2h0'** (Adriatico Guest House - Informatics Laboratory)

Speaker: Verdecchia / Di Sante

16:00 **coffee break 30'** (AGH terrace)

16:30 **Lab session on CHyM hydrological modelling 1h30'**

Speaker: Verdecchia / Di Sante

Thursday, 22 June 2017

09:30 - 18:00

09:30 **participants presentation 30'**

10:00 **coffee break 30'** (AGH terrace)

10:30 **Lab session on CHyM hydrological modelling 2h0'**

Speaker: Verdecchia / Di Sante (Un. L'Aquila / ICTP)

12:30 **lunch break 1h30'** (AGH cafeteria)

14:00 **Lab session on CHyM hydrological modelling 2h0'** (Adriatico Guest House - Informatics Laboratory)

Speaker: Verdecchia / Di Sante

16:00 **coffee break 30'** (AGH terrace)

16:30 **Lab session on CHyM hydrological modelling 1h30'** (Adriatico Guest House -