## 1st European Fully Coupled Atmospheric-Hydrological Modeling and WRF-Hydro Users workshop

University Club Hall at University of Calabria Rende (Cosenza, Italy), June 11-13, 2014



1<sup>St</sup> session

Fully coupled atmo-hydro modeling approaches: State of the art



Rector, Head of Dept. speeches and introduction



Integrated Climate and Hydrology Modelling - catchment scale coupling of the HIRHAM regional climate model and the MIKE SHE hydrological Model

Keynote Speaker

Morten Andreas Dahl Larsen

Technical University of Denmark



Integrated Hydrometeorological Predictions: A case study of the Colorado Front Range Flood of 2013

Oral Presentation

**Dave Gochis** NCAR, USA



Coupling WRF and HMS: a model system allowing simulations of the full atmospheric and terrestrial water balance at regional spatial and climate relevant temporal scales

Oral Presentation

Sven Wagner

KIT, Campus Alpin, Germany



Evaluating coupled atmospheric-hydrological model systems: design and operation of hydrometeorological testbeds

Oral Presentation

Harald Kunstmann

KIT, Campus Alpin & University of Augsburg, Germany



Performance of WRF-Hydro in complex terrain

Oral Presentation

Thomas Rummler

University of Augsburg, Germany



Fully coupled WRF-Hydro atmospheric-hydrological modeling in a Mediterranean catchment

Oral Presentation

Alfonso Senatore

University of Calabria, Italy



Evaluation of a fully coupled atmospheric-hydrological modeling system for the Sissili watershed in the West African Sudanian Savannah

Oral Presentation

Joel Arnault

University of Augsburg, Germany



2<sup>nd</sup> session

Enhancing process representation in fully coupled modeling systems



Coupled modeling of groundwater/surface water interactions: successes and challenges from recent applications

Keynote Speaker

Claudio Paniconi INRS-ETE. Canada

15:00

Saturated zone interaction within WRF-Hydro: from the bucket approach to a physically-based distributed groundwater representation

Oral Presentation

Beniamin Fersch

KIT, Campus Alpin, Germany



Using the WRF-Hydro model for flood forecasting of 100 years flood event in Israel

Oral Presentation

Amir Givati

Israeli Hydrological Service, Israel

16:00

WRF-Hydro simulation of the Himalayan Beas river basin

Oral Presentation

Lu Li

Uni Climate, Norway



The ENKI Hydrologic Modeling Framework: A preprocessor for WRF-Hydro?

Oral Presentation

John Burkhart

L

University of Oslo & Statkraft AS. Norway



OpenMI 2.0 based WRF - SWAT models integration

Oral Presentation

Andrey Bugaets
FERHRI, Russian Federation



Simulation of a Flood event occurred in Istanbul in September 2009 by using the WRF-Hydro Model

Oral Presentation

Elcin Tan
Istanbul Technical University, Turkey



3<sup>rd</sup> session

The forecasting chain and other aspects of land-atmosphere coupling



Use of a fully distributed triangulated irregular network hydrologic model in climate change and ecohydrological studies

Keynote Speaker

Giuseppe Mascaro
Arizona State University, USA



DRIHM and DRIHM2US: e-Infrastructures for hydro-meteo research

Oral Presentation

Fabio Delogu
CIMA Research Foundation. Italy



The POLIMI forecasting chain for flood and drought predictions

Oral Presentation

Alessandro Ceppi

Politecnico di Milano, Italy



Evaluation of hydrometeorological extremes using WRF-Hydro system

Oral Presentation

Ismail Yucel
Middle East Technical University, Turkey

Towa

Towards a WRF-Hydro application for the Tana River basin of East Africa

Oral Presentation

**Noah Kerandi**University of Augsburg, Germany

11:50

High resolution numerical modeling of an idealized daytime Urban Heat Island circulation

Oral Presentation

n **Serena Falasca** Sapienza University of Rome, Italy

12:10

Enhancement of Mercury emissions at the sea water atmosphere interface driven by regional climate changes

Oral Presentation

Christian Natale Gencarelli

12:25

Influences of shipping emissions on Mediterranean air quality and radiative forcing

Oral Presentation

Christian Natale Gencarelli CNR-IIA, Italy

CNR-IIA, Italy



Estimation of the groundwater supply coming from the melting of the Chimborazo glacier (Ecuador)

Oral Presentation

Francesco Chidichimo
University of Calabria, Italy