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DRIHM Project: first year achievements

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Hydro-Meteorology Research (HMR) is an area of critical scientific importance and of high societal relevance. It plays a key role in guiding predictions relevant to the safety and prosperity of humans and ecosystems from highly urbanized areas, to coastal zones, and to agricultural landscapes. Of special interest and urgency within HMR is the problem of understanding and predicting the impacts of severe hydro-meteorological events, such as flash-floods and landslides in complex orography areas, on humans and the environment, under the incoming climate change effects.

At the heart of this challenge, as also suggested by the FP7 DRIHMS (Distributed Research Infrastructure for Hydro-Meteorology Study, www.drihms.eu, 2009-2011) project, lies the ability to have easy access to hydrometeorological data and models, and facilitate the collaboration between meteorologists, hydrologists, and Earth science experts for accelerated scientific advances in hydrometeorological research (HMR).
The FP7 DRIHM project (Distributed Research Infrastructure for Hydro-Meteorology, www.drihm.eu, 2011-2015) project intends to develop a prototype e-Science environment to facilitate this collaboration and provide end-to-end HMR services (models, datasets and post-processing tools) at the European level, with the ability to expand to global scale. The objectives of DRIHM are to lead the definition of a common long-term strategy, to foster the development of new HMR models and observational archives for the study of severe hydrometeorological events, to promote the execution and analysis of high-end simulations, using high performance community and grid computing, and to support the dissemination of predictive models as decision analysis tools.

First year main achievements will be presented and discussed with reference to critical hydro-meteorological events (e.g Genoa november 2011 flash flood).