

Friday, 17 May 2013, 15:00–16:00, Géopolis 2224

Seminar in Computational GIScience

<http://igd.unil.ch/geocomp/seminar>

Loris Foresti

Recent advances in ensemble precipitation nowcasting with weather radar

Nowcasting deals with the very-short term forecasting of rainfall (0-6 hours) at high spatial and temporal resolutions. Consequently, it is strongly driven by the use of remote sensing observations from weather radars. The increasing demand for using radar-based nowcasts within hydro-meteorological prediction systems calls for new scientific developments, in particular for nowcasting precipitation in complex orography.

The seminar will give an overview of two state-of-the-art systems for ensemble rainfall nowcasting, NORA and STEPS. NORA is an analogue-based system for ensemble nowcasting of orographic rainfall developed at MeteoSwiss, while STEPS is a stochastic ensemble prediction system developed at the Australian Bureau of Meteorology in collaboration with the UK

MetOffice. The presentation will be focused on the verification of NORA and STEPS forecasts, which is a key step for advancing the nowcasting science and corresponding operational forecast systems.

Short biography:

Loris Foresti was born in Locarno, Switzerland, in 1985. He studied environmental geosciences at the University of Lausanne, where he also received a Ph. D. degree in 2011. In 2012 he visited the Centre of Australian Weather and Climate Research, Melbourne, as a Swiss National Science Foundation postdoctoral fellow. Loris Foresti recently obtained a research position at the Royal Meteorological Institute of Belgium, where he will continue his studies in very short-term forecasting of rainfall using weather radars.



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