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# Regional Flood Frequency Analysis in Un-Gauged Basins

GIORGIO ROTH[1], GIORGIO BONI[1], LUCA FERRARIS[1],
FRANCESCA GIANNONI[2], ROBERTO RUDARI[1]

[1] *CIMA - Universities of Genoa and Basilicata*

[2] *CMIRL - Agenzia Regionale per la Protezione dell Ambiente Ligure*

The discharge index value estimation, used to make dimensional the growth curve in each site, is the major problem in a regional flood frequency analysis. Because of the great site sensitivity, this topic is a critical issue: in gauged sites the time series average is often sufficient, while in non-gauged sites this index value should be evaluated taking into account as much information as possible about the site concerned. The DRiFt (Discharge River Forecast) model, centred on a proficient description of the drainage system in its essential parts – hillslopes and the channel network – is used to tackle this problem. In DRiFt model the hydrologic response at the basin scale is determined considering actual topography, soil properties, and rainfall fields variability. Calibration and validation of model's parameters – performed through different test cases in different sized basins – led to identify a unique set of parameters for the whole region where the model is applied. This parameters' robustness is the characteristic that allows the use of the model as a link between rainfall and flood frequency analysis. Case of study is the Liguria region, Italy.