Improvement of extreme events models by large-scale climate variability

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Hydroclimatic extremes have severe consequences in all aspects of human life. During the last decade, several works revealed non-stationnarity and non-ergodicity of hydrological time series and their impacts on extreme events models. Many studies allowed the links between hydrological variability and large-scale climate variations. The aim of this propose is to compare extreme events evaluation using stationnary and non-stationnary models based on climate indices (ENSO, NAO, AMO) or geophysical parameters (SST, SLP) on the regional scale of Normandy (France). This approach improve the extreme events models. Large scale climate context during extreme events highlighted the impact of internal climate modes of variability on hydroclimatic extremes.