Geophysical Research Abstracts
Vol. 20, EGU2018-16534, 2018
EGU General Assembly 2018

Homogenization of Temperature and Precipitation time series from a stations network in Abruzzo, Central Italy

Eleonora Aruffo (1,2) and Piero Di Carlo (1)

(1) University "G. d'Annunzio" of Chieti-Pescara, Department of Psychological Science, Health and Territory, Italy, (2) Center of Excellence CETEMPS, University of L'Aquila, Via Vetoio, 67010, Coppito, L'Aquila, Italy

The Italian Hydrographic Service started the measurements of precipitation (P) and temperature (T) in the Abruzzo Region (Central Italy) in the 1880th and the 1925th around, respectively. The initial network of stations increased over the XX century furnishing interesting map of P and T in Abruzzo, a Region characterized by a complex orography. As expected in long T and P time series, inhomogeneities in the time series have been identified due to different factors, such as relocation of stations. Several methods have been proposed to homogenize T and P time series; in 2013 Mestre et al., in the framework of the European COST Action HOME ES0601 (HOME, 2011), presented an open source code for the homogenization of monthly data: HOMER. In our work, we used the HOMER software to homogenize the T and P time series in the period 1950-2015 measured in the Abruzzo region network. Following the WMO indication (WMO, 2011), we did quality control on measured data before to apply HOMER. We will show the results, indicating the outliers and the breaks identified during the homogenization processes. Finally, we will show yearly and seasonal trend of T and P in the Abruzzo Region.