Geophysical Research Abstracts Vol. 18, EGU2016-7340, 2016 EGU General Assembly 2016 © Author(s) 2016. CC Attribution 3.0 License.



## **Comparing the Palmer Drought Index and the Standardized Precipitation Index for Zagreb-Gric Observatory**

Kreso Pandzic

Meteorological and Hydrological Service, General Meteorology Division, Zagreb, (pandzic@cirus.dhz.hr)

Conventional Palmer Drought Index (PDSI) and recent Standardized Precipitation Index (SPI) are compared for Zagreb-Gric weather station. Historical time series of PDSI and SPI are compared. For that purpose monthly precipitation, air temperature and air humidity data for Zagreb-Gric Observatory and period 1862-2012 are used. The results indicate that SPI is simpler for interpretation than PDSI. On the other side, lack of temperature within SPI, make impossible use of it on climate change applications. A comparison of PDSI and SPI for the periods from 1 to 24 months indicate the best agreement between PDSI and SPI for the periods from 6 to 12 months. In addition, correlation coefficients of determination between annual corn crop per hectare and SPI 9- months time scale and PDSI from May to October are shown as significant.