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## **Uncertainty analysis of solar/geomagnetic activity impact on terrestrial variables, based on the information theory**

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The present study aims at investigating uncertainty of external factors, namely the solar/geomagnetic forcing on the terrestrial variables as the Danube discharge and the atmospheric indices at the large scale. Our analysis was performed separately for each season, for two time periods, 1901-2000 and 1948-2000.

The relationship between terrestrial variables and external factors was achieved by applying the information theory elements as synergy, redundancy, total correlation and transfer entropy.

The results differ depending on the time of year and the analysed variables.

From this analysis resulted that the two external forcings can be considered together as predictors for certain cases, while for others they are very redundant, therefore the one that produces the lowest uncertainty connection was selected.