



## **The impact of occurrence of exceptional solar events on mortality from diseases of the nervous system**

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The aim of this conference paper is to analyse relationships between strong changes of solar, geomagnetic and ionospheric physical parameters, and mortality by medical cause of death from diagnosis group Diseases of the nervous system by ICD-10 WHO. The aggregated daily number of deaths of 6 largest individual causes of death of group VI. Diseases of the nervous system on the occurrence of exceptional solar and geomagnetic events is investigated. Analysis is performed for the period of the solar cycles No. 23 and 24 (years 1994-2013) in the Czech Republic. The correlation between the intensity of mortality from diseases Multiple sclerosis, Epilepsy, Cerebral palsy, Parkinson disease, Secondary parkinsonism and Alzheimer disease and the solar, geomagnetic and ionospheric physical parameters is examined using stochastic method of graphical models of conditional dependences. We study the daily number of deaths separately for both sexes at the age groups under 39 and 40+. Differences are found for maximum solar activity and during the ascending and descending epoch of the solar cycles.