

## **X-RADIATION SPECTRA IMPORTANT FOR THE D-REGION IONIZATION DURING SOLAR X-RAY FLARES**

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The terrestrial ionosphere is permanently exposed to solar radiation whose influence on processes in ionospheric plasma is space and time dependent. Namely, the radiation spectra, absorption in higher layers, total ionization cross-sections and ionospheric properties are not uniform in time and space. The resulting effects of the solar line and continuum radiation on the ionospheric plasma are very complex which requires studies based on adequate modeling and application of specific numerical tools in solving multi-parameter equations.

In this work we present a procedure for determination of time evolution of the X-radiation spectrum and influences of photons dominating in ionization processes in the ionospheric D-region during solar X-ray flares. We use real observational data obtained by the GOES satellite and very low frequency radio signal emitted in Germany and recorded in Serbia.