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Poster

MODELING THE ATMOSPHERE UNDER THE INFLUENCE OF INTENSE SOLAR X-RAY RADIATION

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Radio signals are ideal tool for remote monitoring ionospheric D-region. Propagation of VLF radio waves emitted by man-made transmitters takes place in the Earth-ionosphere waveguide and strongly depends on the electrical properties of the ionosphere (Šulić & Srećković, 2014, Nina et al., 2011). During occurrence of solar flare the altitude profile of ionospheric conductivity changes, a VLF signal reflects from lower height and these changes result that radio propagation is performed with more discrete modes than in normal ionospheric condition (Šulić et al., 2016). The aim of this study is to accurately model the perturbed D-region and to obtain ionospheric parameters during huge solar flares which may continuously perturb this layer for several hours.

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