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MULTI-INSTRUMENTAL INVESTIGATION OF THE POWERFUL SOLAR FLARES IMPACT ON THE IONOSPHERE: CASE STUDY

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Case study of energetic solar events which included strongest solar flare of the previous solar cycle, X9.3 from 6 September 2017 and accompanying Coronal Mass Ejections (CMEs) directed towards Earth is presented through ionospheric and primary cosmic rays implications. Conducted analysis and numerical simulations were done both on data from ground-based Belgrade Very Low Frequency (VLF) and Cosmic Ray (CR) stations and space-borne satellite platforms of GOES and SOHO missions. Some of the main findings regarding related disturbances of ionospheric parameters and on primary cosmic rays are presented in this work.