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2. CRs at Earth and planets (GEO)

## **Forbush decrease prediction based on the remote solar observations**

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Forbush decreases are short term depressions in the galactic cosmic ray flux observed at Earth and in the interplanetary space, caused by interplanetary counterparts of coronal mass ejections (CMEs). The shape, duration and magnitude of these decreases are related to enhanced solar wind speed and interplanetary magnetic field associated with interplanetary coronal mass ejections (ICMEs), as well as a turbulent sheath region preceding some of the ICMEs.

The relationship between in situ properties of ICMEs and Forbush decreases was studied intensively and enables using real-time near-Earth in situ measurements as a forecast of the approaching ICME-related Forbush effects 1 hour in advance. We study the relationship between remote solar observations of CMEs and the associated solar flares and employ these observations to forecast the approaching ICME-related Forbush effects 1 day in advance.