

HEMISPHERIC AND LONGITUDINAL ASYMMETRIES IN CME OCCURRENCE

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A considerable amount of evidence has accumulated in support of the existence of persistent, systematic north-south (hemispherical) and longitudinal (active longitudes) asymmetries in the Sun. These features have been observed, e.g., in sunspots, solar flares, solar wind and the heliospheric magnetic field. In this work we analyze the occurrence of Coronal Mass Ejections (CMEs) observed by the SOHO LASCO instrument during the solar cycle 23. We use the manually compiled LASCO CME catalog maintained at the CDAW Data Center and for comparison the CACTus CME catalog based on automatic detection of CMEs by the CACTus software developed at SIDC in the Royal Observatory of Belgium. We discuss the temporal evolution of the occurrence rate of CMEs and study the north-south and east-west asymmetries and their temporal change. We also present a preliminary analysis of CME occurrence in a rotating coordinate system. We discuss the observations in view of the earlier evidence for hemispherical asymmetries and active longitudes.

coronal mass ejections, longitudinal asymmetry

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