



## **The space weather forecast using a cone model for halo CMEs**

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Halo coronal mass ejections (HCMEs) originating from regions close to the center of the Sun are likely to be geoeffective. Assuming that the shape of HCMEs is a cone and they propagate with constant angular widths and velocities, at least in their early phase, we have developed a method (Michalek et al. 2005) which allowed us to obtain the space speed, width and source location. We apply this technique to obtain the parameters of all full HCMEs observed by the Solar and Heliospheric Observatory (SOHO) mission's Large Angle and Spectrometric Coronagraph (LASCO) in the period of time from 2001 until 2002. Using this data we could predict with very good accuracy arrival time of magnetic cloud in the Earth vicinity and the strengths of geomagnetic storms.