

Interplanetary Consequences of Coronal Mass Ejections Occurred During Solar Cycle 24

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In this talk, we review the results on the propagation effects and interplanetary consequences of fast and wide coronal mass ejections (CMEs), occurred in the current solar cycle #24, in the Sun-Earth distance range. The current cycle is the weakest sunspot cycle since cycle 14 and it has led to a low-speed dominated heliosphere. The interplanetary scintillation (IPS) images have been employed to study the large-scale structures of CME-driven disturbances within ~1-AU heliosphere. The comparison of CME speeds, from IPS observations in the inner heliosphere and *in-situ* measurements at 1 AU, indicates that the drag force imposed by the low-speed wind dominated heliosphere on the propagation of CMEs may not be effective. The arrival of shocks at 1 AU suggests that a shock can be driven in the interplanetary medium by the central part of the moving CME and also by a different part away from its center. The geoeffectiveness of CMEs is discussed based on both CME and solar wind conditions encountered by the CME on its way from Sun to 1 AU.