



Properties and processes that influence CME geo-effectiveness

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The geo-effectiveness of coronal mass ejections (CME) is determined by a complex chain of processes. This fact will be highlighted by reviewing CME's (1) intrinsic properties set at the Sun (e.g., orientation, trajectory, velocity, etc.), (2) processes that may occur during propagation (e.g., shocks, compressions, magnetic erosion, etc.), and (3) in the specific interaction with Earth's magnetosphere (e.g., preconditioning mechanisms), and which sequentially have a significant influence on their final geo-effectiveness. Their relative importance is discussed. While the CME's trajectory, magnetic field orientation, velocity and their duration as set at the Sun certainly are key ingredients to geo-effectiveness, other processes and properties that at first appear secondary often may be as important.