

Dynamics of Coronal Mass Ejections

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Coronal Mass Ejections (CMEs) are large plasma structures (10^{16} g) expelled from the low corona to the interplanetary medium with velocities ranging between 100 and 3000 km/s. In its way to the outer heliosphere interplanetary CMEs or ICMEs interact with all sort of obstacles as: the ambient solar wind (SW); previous and slower ICMEs; high speed streamers; planetary magnetospheres and ionospheres; etc.

Therefore, ICME dynamics is rich but poorly understood. In this talk I present observational evidences of such interactions as well as some analytical models proposed to explain the interaction between ICMEs and SW and other ICMEs. As in general, a drag force is invoked to account for the ICME-SW interaction, we present an evaluation of the drag coefficient as a function of the heliographic distance. This evaluation is based on a hybrid viscosity, which takes into account both: the interactions between particles and the interaction between the magnetic field inhomogeneities and particles.