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The active Sun and its implication for the heliosphere
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The Characteristics of CMEs from Combined STEREO Imaging and In-situ Observations

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Since the start of STEREO observations early in 2007 and despite being in an extended period of low solar activity, there have been at least 20 events in which a CME observed at the Sun by one or both STEREO (SECCHI) and/or SOHO (LASCO) spacecraft has passed over one of them or the Earth, as detected from in-situ data. The source regions of the CMEs on the Earth-facing Sun have been well observed by SOHO and Hinode and, since last April, by the Solar Dynamics Observatory. The heliospheric propagation of these events has also been observed by the heliospheric imagers (HIs) on STEREO and/or from the Solar Mass Ejection Imager (SMEI) in Earth orbit. HI and SMEI observations of the same ICMEs provide complementary information. This class of events can provide important information on the characteristics of the geometry, propagation and internal structure of CMEs. Most of these ICMEs also have magnetic cloud signatures at 1 AU. I will summarize the characteristics of these events and what they can tell us about CMEs.