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## On the production of magnetosheath jets during a CME and SIR passage: A case study

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Large scale solar wind (SW) structures called Coronal Mass Ejections (CMEs) and Stream Interaction Regions (SIRs) propagate through the interplanetary medium, where they might impact Earth and cause jet-like disturbances in the magnetosheath. Such jets are short scale structures characterized by an enhancement in dynamic pressure that propagate through the Earth's magnetosheath (EMS) transporting mass, momentum and energy being able to affect and perturb the Earth's magnetosphere.

Jets have been studied for 20 years, but how different SW conditions triggered by CMEs and SIRs affect jet production is a topic that has only recently begun to be studied. In this work we characterize jets observed by THEMIS during a CME and a SIR passage. We find clear differences in number and size between the jets associated with the CME regions arriving at the EMS as well as in comparison with the characteristics of jets associated with the SIR passage. Comparing WIND and THEMIS data we discuss how these differences are linked to the SW conditions in the context of a recent statistical study (Koller et al. 2022) and with different jet generation mechanisms.