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Earth-directed ICME magnetic field configuration

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It is known that the geoeffectiveness of interplanetary coronal mass ejections (ICMEs) depends on their magnetic field configuration. However, it remains unclear how the ICME interactions with the solar wind or other solar transient structures affect their magnetic configuration through, say, distortion of their cross-section, or deformation of their front. Obviously, precise space weather forecasting is depended on precise understanding of the evolution of the ICME internal magnetic topology.
The goal of this study is to identify the ambient solar wind parameters that affect the flux-rope geometry and magnetic field configuration.