



## **On the twist of magnetic flux ropes in the corona and solar wind**

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Helical magnetic structures are one of the fundamental structures in the universe. They are believed to be the main carriers of mass, magnetic flux and magnetic free energy, and therefore closely related to various kinds of eruptions. The key questions for the helical magnetic structures are how they release magnetic free energy in a sudden way, when they release the free energy, and where the free energy goes. In the corona and solar wind, helical magnetic structures can appear in solar jets, coronal mass ejections, interplanetary magnetic clouds, etc., and there are a plenty of imaging data and in-situ measurements of these phenomena. Starting from observations, we review the current progresses and try to seek the answers of the above key questions.