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Investigating the magnetic field structure of Coronal Mass Ejections during their propagation

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Coronal Mass Ejections (CMEs) originate from the eruption of complex magnetic structures occurring in our star's atmosphere. They propagate in the interplanetary medium, where they can be probed by spacecraft. CMEs are known to generate geomagnetic storms that can disturb our technologies on Earth. Studying CMEs could, therefore, allow us to predict and lower their impact in our technology.

In this seminar, I will talk about how we can use in situ measurements to study the CME magnetic structure and its evolution during the propagation up to the Earth. I will also discuss the observational challenges associated with in situ measurements and how multispacecraft missions can bring unique insights about CME properties.