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Thin current sheets and the associated wave activity observed by Solar Orbiter

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Thin current sheets are routinely observed in the solar wind. Here we report observations of thin current sheets and the associated plasma waves using the Solar Orbiter spacecraft. The Radio and Plasma Waves (RPW) instrument provides high-resolution measurements of the electric field, number density perturbations, and magnetic field fluctuations, which we use to identify and characterise the observed waves, while the magnetic field provided by the MAG instrument is used to characterise the current sheets. We discuss the role of current sheets in the generation of the observed waves and the effects of the waves on the current sheets.

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