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Properties of corotating interaction regions observed in the inner heliosphere by the STEREO spacecraft.

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The images taken by the Heliospheric Imagers (HI) onboard the STEREO spacecraft provide information on the latitudinal distribution of the plasma compressed inside Corotating Interaction Regions (CIRs). In this study, the size and orientation of the plasma waves associated with these CIRs are compared to in-situ observations of density increase, non-radial flows and the orientation of the stream interface. The implications of this study for forecasting the magneto-hydrodynamic properties of CIRs impinging on the Earth's magnetosphere are discussed.