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# Directivity of type III solar radio bursts at low frequencies : prospects on STEREO mission.

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The type III solar radio bursts are produced by subrelativistic electrons travelling outward along open magnetic field lines to lower densities in the interplanetary medium (IPM). Along their path in the IPM, these electrons trigger intense Langmuir waves which are in part converted into radio emission at the fundamental (F) and/or harmonic (H) of the local plasma frequency. We present observations of these type III solar radio bursts performed simultaneously by Wind and Ulysses spacecraft (s/c) while this latter crossed the ecliptic plane in March 1995. Using a simple IPM density model and applying direction finding (DF) possibilities on board, we localize the radio sources in the IPM. Once the position of radio sources are known, we compute, for each of the bursts, the ratios of the fluxes observed by the two s/c at several frequencies. From a statistical analysis of these ratios, we deduce some geometrical properties of the type III radio patterns as a function of frequency. Extension of a recent DF analytical method, initially developed and applied to the Cassini/RPWS radio data (Cecconi et al.,2005), to finite dimensions radio sources is discussed in the prospect of the forthcoming STEREO mission.