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Stereoscopic analysis of Jovian DAM by using STEREO/WAVES experiment

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The highest intensity part of Jovian DAM radio emission can be easily detected from Earth's vicinity by any space borne sensitive radio astronomy experiment: the emission mostly appears as isolated "great arc" events, - i.e. as curved features on radio spectrograms -, typically a few per day. Here we use S\WAVES data from the twin STEREO spacecraft for analysing a large collection of such events. While the two spacecraft were orbiting the Sun, their difference in position with respect to Jupiter leads to both CML and light time differing by up to 25° and 1000 sec., respectively. This offered the way to disentangle, on a single event basis, Io and non-Io controlled components, allowing beam widths and time scales of various DAM emissions to be determined. Search for flux tube emission coming from other Galilean satellite could be conducted in the same way.