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Jovian non-thermal radio emission observed by STEREO/WAVES

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Solar TErrestrial RElations Observatory (STEREO) consists of two 3-axis-stabilized identical spacecraft (STEREO-A and STEREO-B), launched on Oct. 25, 2006. The WAVES experiment onboard STEREO is a radio burst tracer which observes the generation and evolution of the radio disturbances from the Sun to the orbit of Earth. Being mainly dedicated for measuring solar radio bursts, SWAVES also provided unique observations of the Jovian planetary radio emission. For the first time Jovian radiation is observed stereoscopically by two identical spacecraft in a frequency range from few kHz up to 16 MHz. The data recorded during more than two years (Nov 2006 - Dec 2008) of mission operations is analyzed. A big amount of the events of non-Io and Io controlled “arc-like” decametric components of the Jovian radiation (DAM) as well as hectometric emission (HOM) has been recorded. The unique stereoscopic observations by STEREO provide the opportunity to determine the propagation characteristics of the Jovian non-thermal radiation such as directivity and beam width of the emission cone. First results will be presented.