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Occultation of the Source Region of Saturn Narrowband Emissions

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Saturn narrowband emission is a non-thermal radio emission normally observed around 5 and 20 kHz. It occurs periodically after an intensification of SKR and is modulated at about the rotational period of Saturn. Narrowband emissions are found to be L-O mode which could be mode converted from intense electrostatic upper hybrid waves or Z-mode waves detected interior to Saturn's plasma torus. In 2008, during many periapsis passes, Cassini RPWS observation of the 5 kHz narrowband emissions was interrupted by what is interpreted as occultation of the source region by the planet. We determine the source region of Saturn narrowband emissions geometrically using these occultation events