

OBSERVATIONS OF CHORUS AT SATURN BY CASSINI

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Abstract

The Cassini Radio and Plasma Wave instrument has detected whistler-mode chorus during many of its one hundred thirty-five orbits of Saturn. Similar to observations of chorus in Earth's magnetosphere, the chorus at Saturn is found to always be propagating away from Saturn's magnetic equator, suggesting a source near the magnetic equator. Unlike chorus at Earth, the chorus at Saturn is only observed below half the electron cyclotron frequency unless it is detected in association with a local plasma injection event. This work will expand our earlier survey of chorus observations from the first forty-five orbits of Cassini and discuss the similarities and differences of the two types of chorus detected at Saturn to observations of chorus at Earth and Jupiter.

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