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Chorus emission and electron acceleration at Saturn and Jupiter

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Initial investigations have shown the likelihood of intense chorus emission as a source of electron acceleration in the Jovian magnetosphere. Strong chorus emission is also observed at Saturn, but the ratio of plasma to cyclotron frequency (fp/fc) differs at the two planets where chorus intensities are high. At Jupiter chorus emission is strong outside the Io plasma torus, while at Saturn intense chorus is observed in the approximate range $5 < L < 8$, where fp/fc is larger, which can have significant impact on pitch angle scattering of electrons and consequent acceleration. We compare chorus intensity and key plasma parameters near the magnetic equator at Saturn and Jupiter to determine the relative importance of chorus and other plasma waves in stochastic electron acceleration.