> ABSTRACT
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> Excitation of whistler-mode waves and resonant electron
> scattering in the Jovian magnetosphere
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> A study of in-situ measurements form the Galileo spacecraft
>
> suggests that there is a direct association between enhanced
>
> electron fluxes and the presence of whistler-mode plasma waves.
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> Resonant interactions between waves detected by the Plasma
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> Wave Sybsystem and energetic electrons observed by the
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> Energetic Particles Detector may play a role in diffuse
>
> auroral precipitation. We present here a study of wave
>
> intensifications during electron injection events in the
>
> extended Io torus region. We note that Doppler broadening
>
> due to the velocity differential between the Galileo spacecraft
>
> and corotational, magnetospheric plasma may be responsible
>
> for an appreciable shift in the observed wave frequency,
>
> particularly in the case of oblique wave propagation. We
>
> present power spectral densities and evidence of strong
>
> pitch-angle scattering that may provide the mechanism for
>
> filling the atmospheric loss cone, leading to Jupiter's
>
> diffuse aurora.
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