Injections from the Plasma Sheet

EMIC wave generation
in dusk-noon
plasma plume

100-300 keV
electron flux
increase

Chorus wave generation
in midnight-dawn
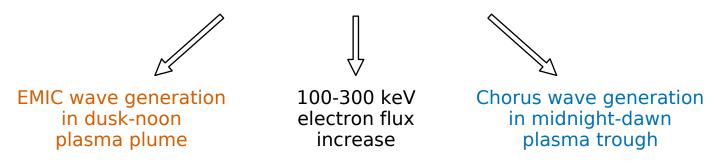plasma trough

The net effect on $J(E)$ depends on the initial $J_{in}(E)$
and on the steady-state attractor $J_{ul}(E) = f(D_{\alpha\alpha}, D_{EE})$

Moderate initial gradient:
EMIC-driven electron
losses prevail

$\frac{J(E)}{J(E_0)}$

t_0
t_1
$J_{in}(E)$
$J_{ul}(E)$

Moderate
injections

Energy

Steep initial gradient:
chorus-driven electron
acceleration prevails

$\frac{J(E)}{J(E_0)}$

t_0
t_1
$J_{in}(E)$
$J_{ul}(E)$

Strong
injections

Energy