We observe strong plasma wave damping due to both magnetic and electric separatrices.

At left, a very weak magnetic ripple, $\delta B_z/B_z \sim 10^{-3}$, causes damping of a $k_z=1$, $m_\theta=1$ plasma wave at rate $\gamma_{11}^{(M)}$ (red), greatly exceeding Landau damping.

Adding a positive anti-squeeze does nothing (blue).
Adding a negative squeeze (blue) makes a separatrix, causing proportional increase in damping (black).

Wave damping can be further increased by chaotic dissipation on separatrix *ruffles*.

At right, the "Trapped Particle Diocotron Mode" damping rate $\gamma_{1a}$ is increased
(a) by a static applied ruffle $\Delta V_m$; or
(b) by a wave-induced ruffle, from wave amplitude $Q$.

Damping experiments spanning $0.4 < B < 20\text{.kG}$ show the same scalings as transport:

- Chaotic $\propto B^{-1}$
- Collisional $\propto B^{-1/2}$