A Reduction of \( \approx 20\% \) in \( \tau_E \) During Neon- and Argon Injection was Driven by Evolving MHD Activity in These High \( \beta_N \) Plasmas

- Result at lower \( P_{IN} \) and \( \beta_N \):
  \( \approx 2\text{-}3X \) reduction in divertor heat flux with minimal decrease \( \tau_E \)

- At higher \( P_{IN} \) and \( \beta_N \):
  The susceptibility of high \( \beta_N \) DND plasmas to tearing modes during impurity injection complicates successful application of the radiating divertor/mantle to DIII-D.

- Outlook:
  Tearing modes must be avoided when combining a radiating mantle or a radiating divertor approach with high power, high \( \beta_N \) scenarios.

\( \Delta W/W_0 = -4 \, r_s^3 \, w/a^4 \)