XP539 - Investigation of Cold Pulse Propagation From Type I ELMs

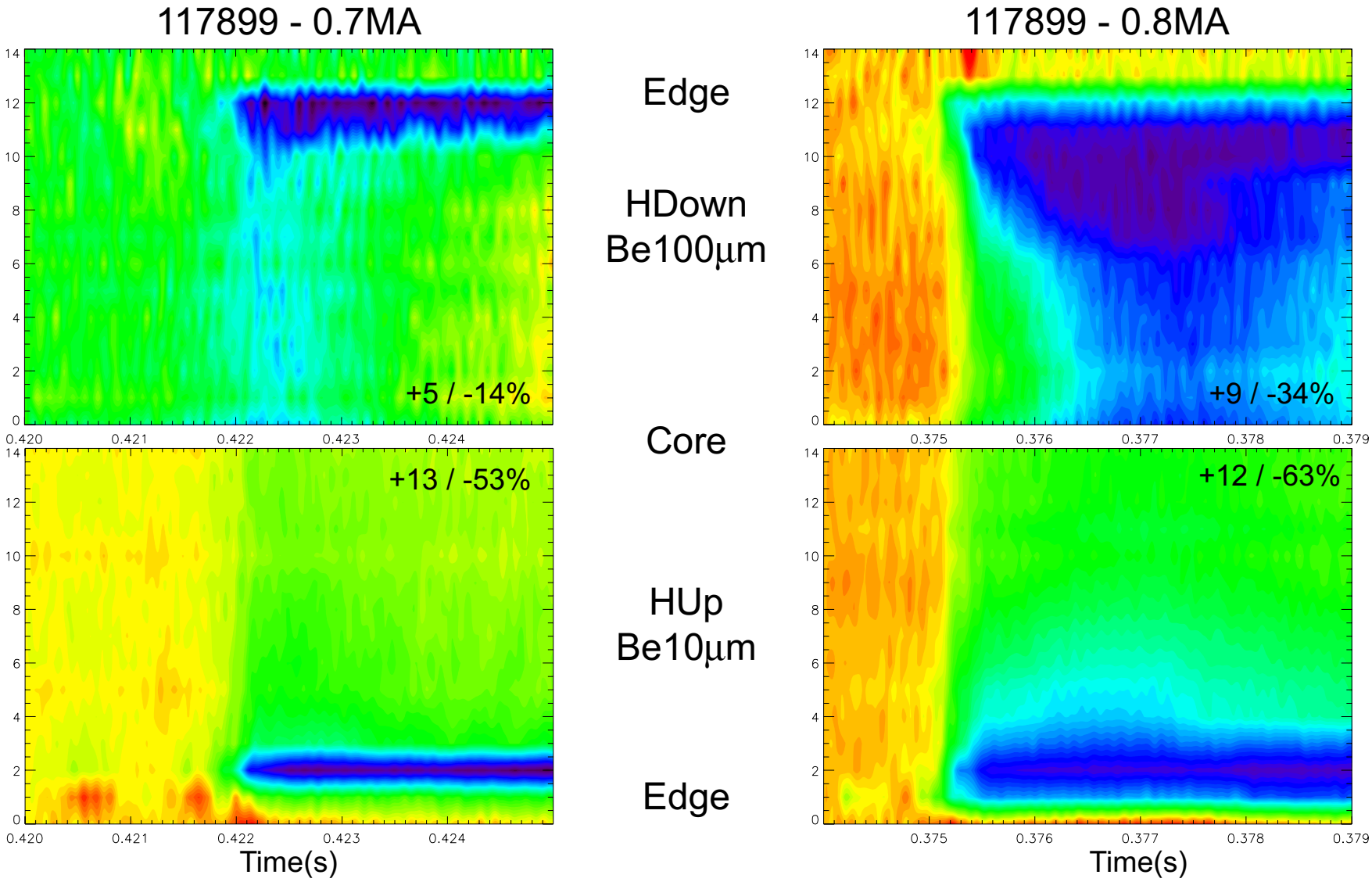
Motivation: Type I ELMs can cause rapid and global drop in T_e profile.

Question: Since thermal transport is dominated by the electrons, will modifying the electron confinement alter this perturbation?

Method: Electron confinement scales with I_p so scan plasma current and look for changes in the propagation of the cold pulse.

Result (init.): We observed a qualitative change in the propagation and penetration of the cold pulse between 0.8MA and 0.7MA at 4.5kG. This abrupt change may indicate a relationship to q.

dI/I Shows Qualitative Change Between 0.8 and 0.7MA



- Could be a q related resonance layer effect
- No large coherent modes observed