Simulations of two types of energetic particle driven geodesic acoustic modes and the energy channeling in the Large Helical Device plasmas

Hao WANG, Yasushi TODO, Masaki OSAKABE, Takeshi IDO, Yasuhiro SUZUKI



✤ The transition between low frequency and high frequency EGAMs is decided by the slope of EP velocity distribution.

The EGAM channeling is reproduced by simulation for the first time.

✤ The sideband resonance is dominant during the energy transfer from EGAM to the bulk ions, and the  $\frac{1}{2}$ transit frequencies of resonant bulk ions are half EGAM frequency.



bulk ions [arb.

)\*ðf of l

TH/P2-11

0.3