

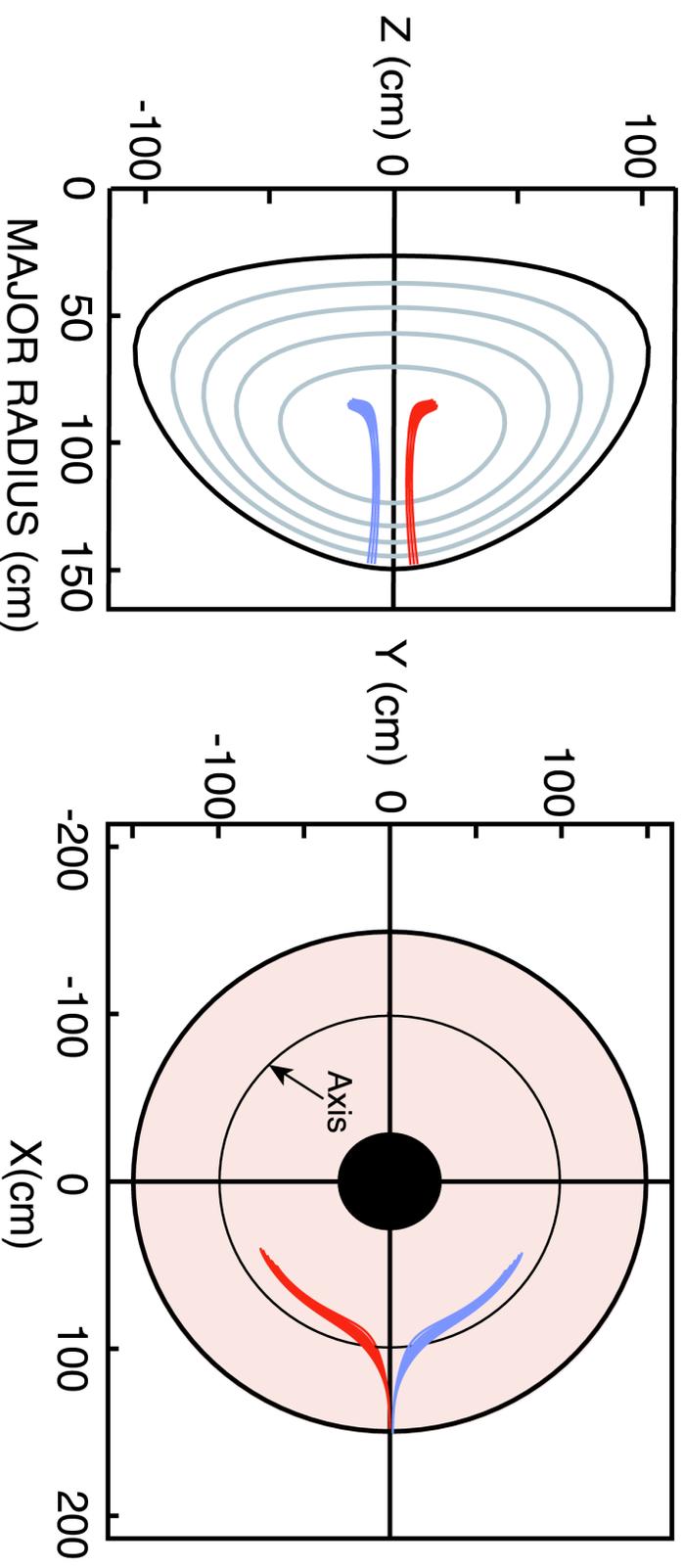
EBW Current Drive Direction Changed via Poloidal Launch Angle

EBW Frequency = 12 GHz, $-0.25 < n_{\parallel} < 0.25$, 10 cm pol. length

Launched 10 deg. above mid-plane

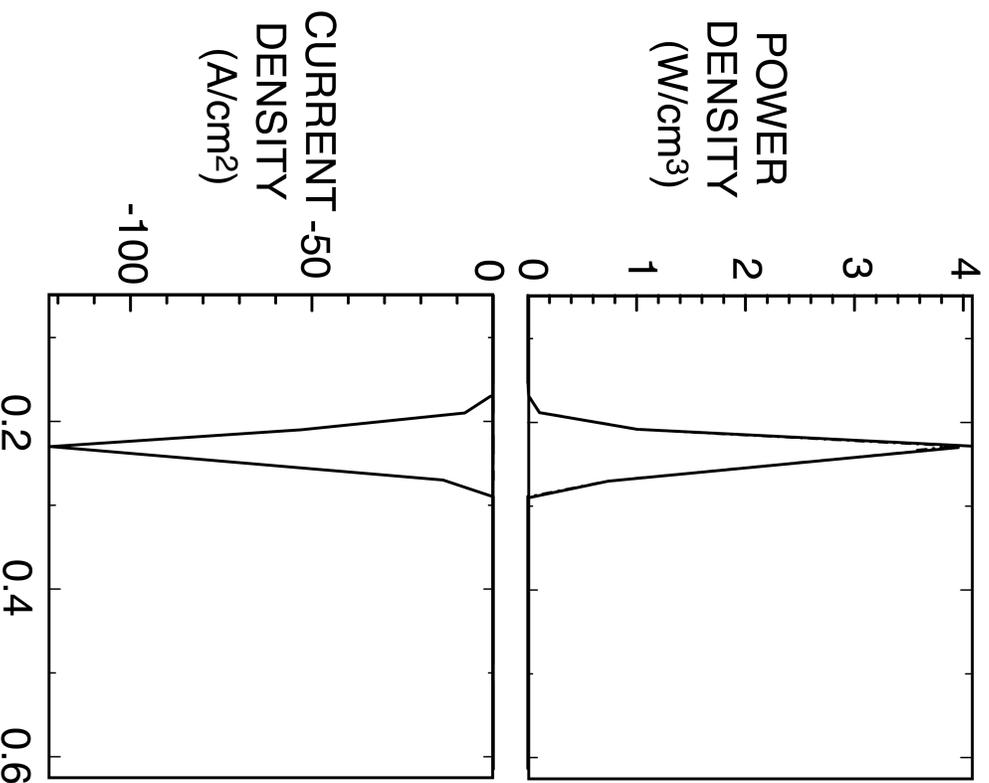
Launched 10 deg. below mid-plane

NSTX $\beta = 12\%$, $n_{e0} = 2 \times 10^{19} \text{m}^{-3}$, $T_{e0} = 1 \text{keV}$



Complex

At $\beta = 12\%$ NSTX Plasmas with $n_{e0} = 2 \times 10^{19} \text{m}^{-3}$, $T_{e0} = 1 \text{keV}$
EBW Current Drive Efficiency with 1 MW is $\sim 0.1 \text{AW}^{-1}$



- At $\beta \sim 40\%$ current can be driven on the HFS, but at lower efficiency
- At $\beta \sim 40\%$, n_{\parallel} trajectory very sensitive to magnetic equilibrium
- Need to optimize n_{\parallel} at the EBW power deposition region

Complex