Transport of parallel momentum by the triplet correlation in drift wave turbulence

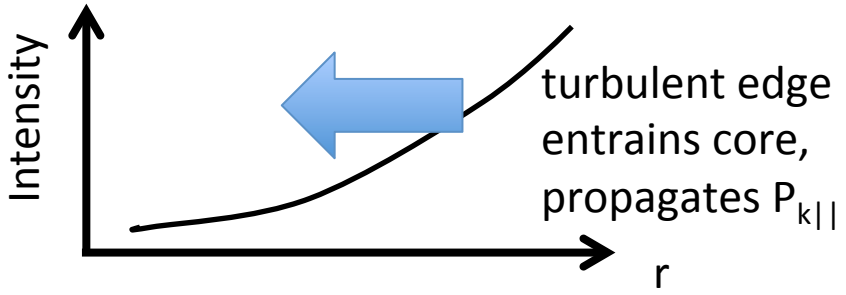
- Flux of fluctuation // mom. by the triplet correlation is calculated

$$\langle \tilde{v}_x \tilde{n} \tilde{v}_{\|} \rangle = \sum_{\mathbf{k_1}} (V_{\mathbf{k_1}} P_{\|\mathbf{k_1}} - D_{\mathbf{k_1}} \partial_x P_{\|\mathbf{k_1}})$$

Convection Diffusion Fluctuation mom. density

- Fusion application:

1. In L-mode, induce edge-core coupling of toroidal flows



2. In H-mode, spin-up of toroidal flows

$$\Delta \langle v_{\|} \rangle \sim \left\{ \frac{\partial}{\partial r} \left(\frac{\Delta_c^3}{\rho_s L_I L_n} \frac{L_s}{L_n} \right) \left(\frac{I_p c}{enVB} \right) \left(\frac{\Delta_E e E_r}{T_e} \right) \right\} \frac{nT_e V}{I_p}$$

Radial electric field

akin to Rice scaling