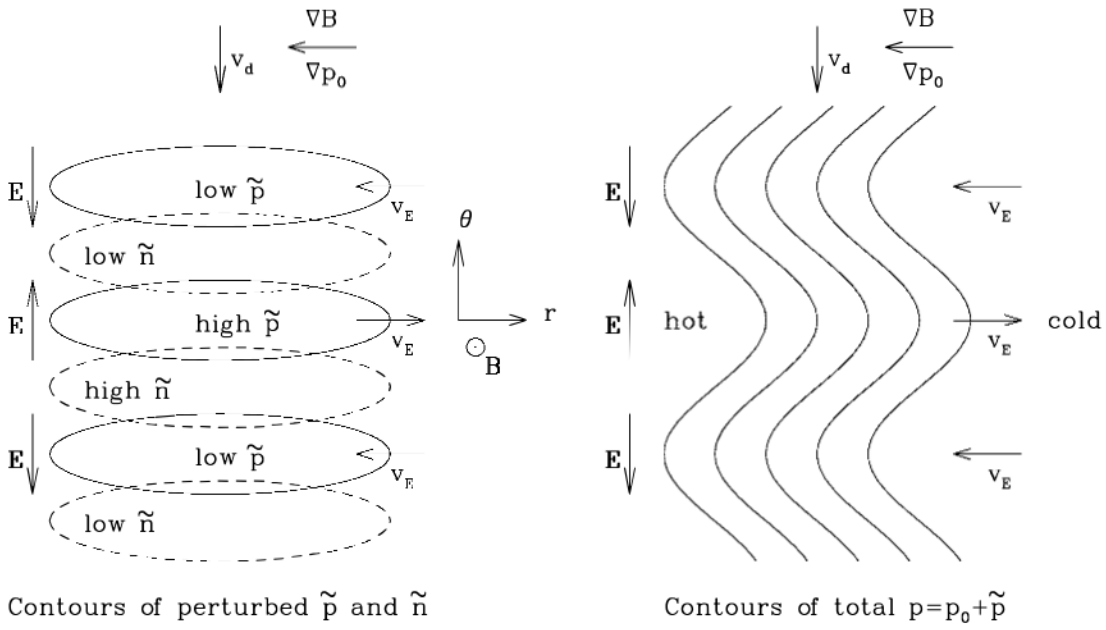

Figure 1.1: Simple picture of the toroidal ITG instability mechanism on the outer midplane of a tokamak. The velocity dependence of the downward ∇B and curvature drifts cause ion density build-up below the hot spots and above the cold spots. This produces the electric field, which $\mathbf{E} \times \mathbf{B}$ convects hotter plasma into the hot spots, and colder plasma into the cold spots. On the inner midplane where ∇p_0 is reversed with respect to ∇B, colder plasma is convected into the hot spots, and this feedback mechanism is shut off.