Magnetic mirrors

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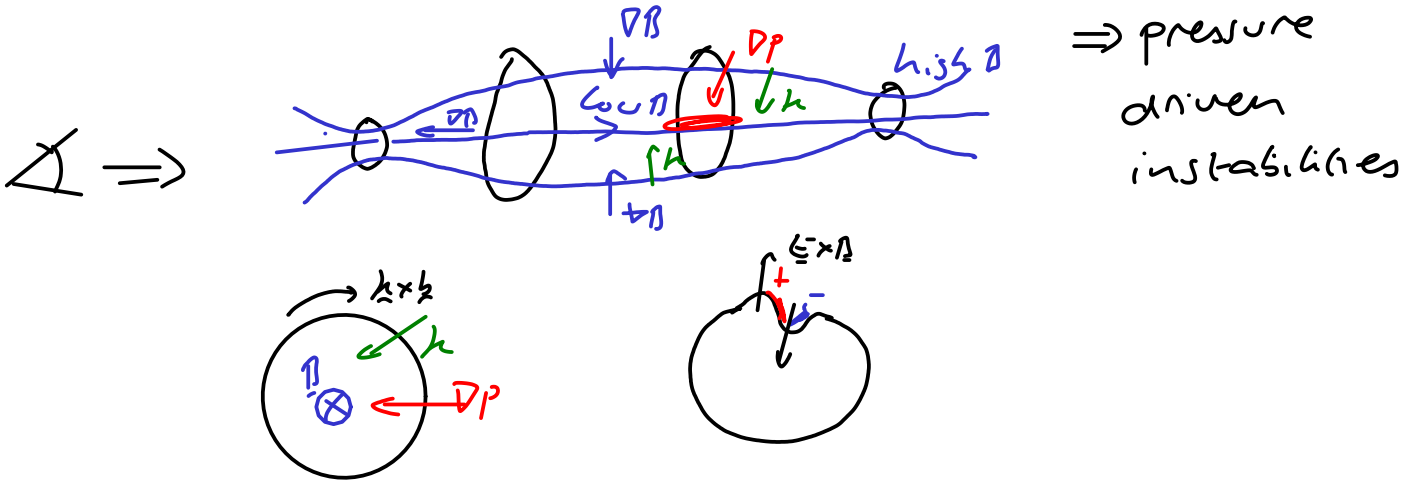
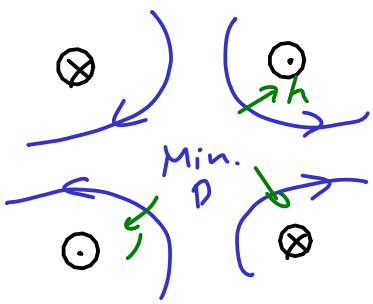
$$\mu = \frac{m v_\perp^2}{2B} \qquad \frac{1}{2} m \left(v_\parallel^2 + v_\perp^2 \right) = \text{const}$$

adiabatic invariant

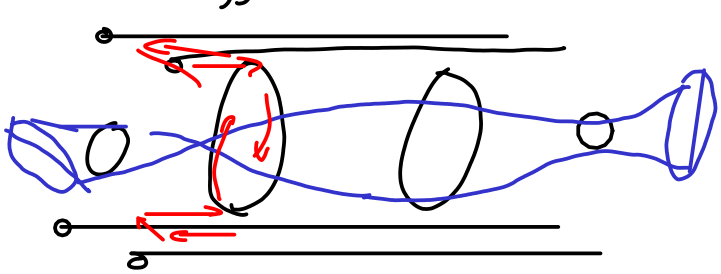
$\nabla p \cdot \underset{\sim}{\kappa} > 0$ ⇒ pressure driven instabilities



Magnetic cusp

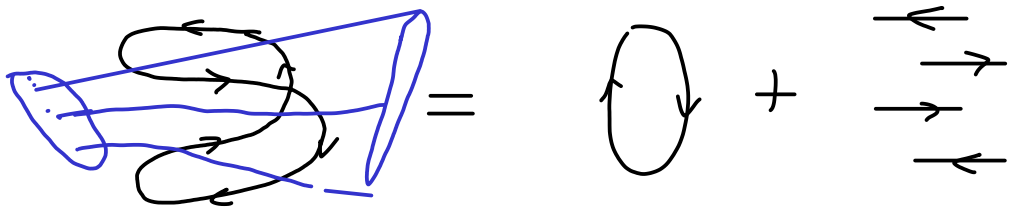


Ioffe Bars



Stabilise MHD

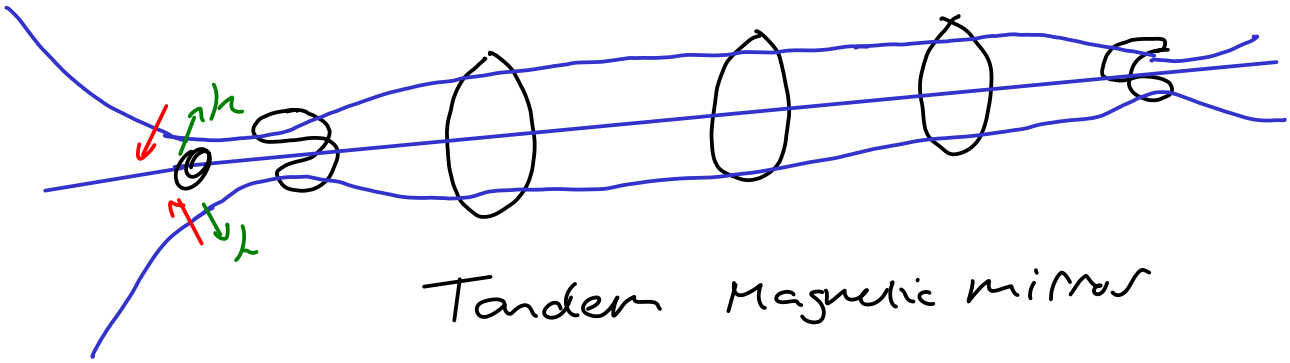
Worse particle confinement



"Tennis" or "Baseball" coil

"Yin-Yang" coils

$\Rightarrow$ Make average magnetic field increasing in all directions



Tandem Magnetic mirror

"Kinetic" stabilization