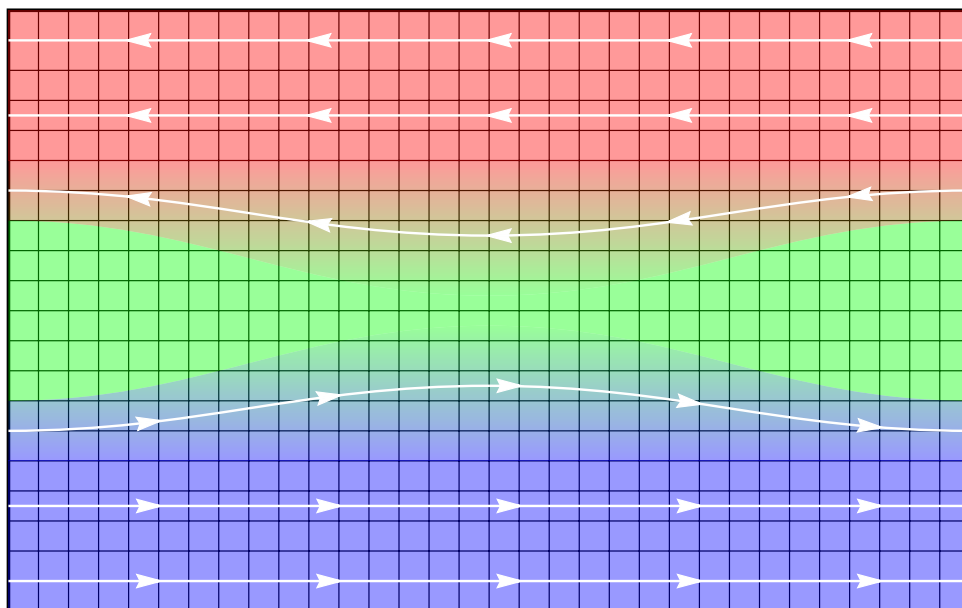
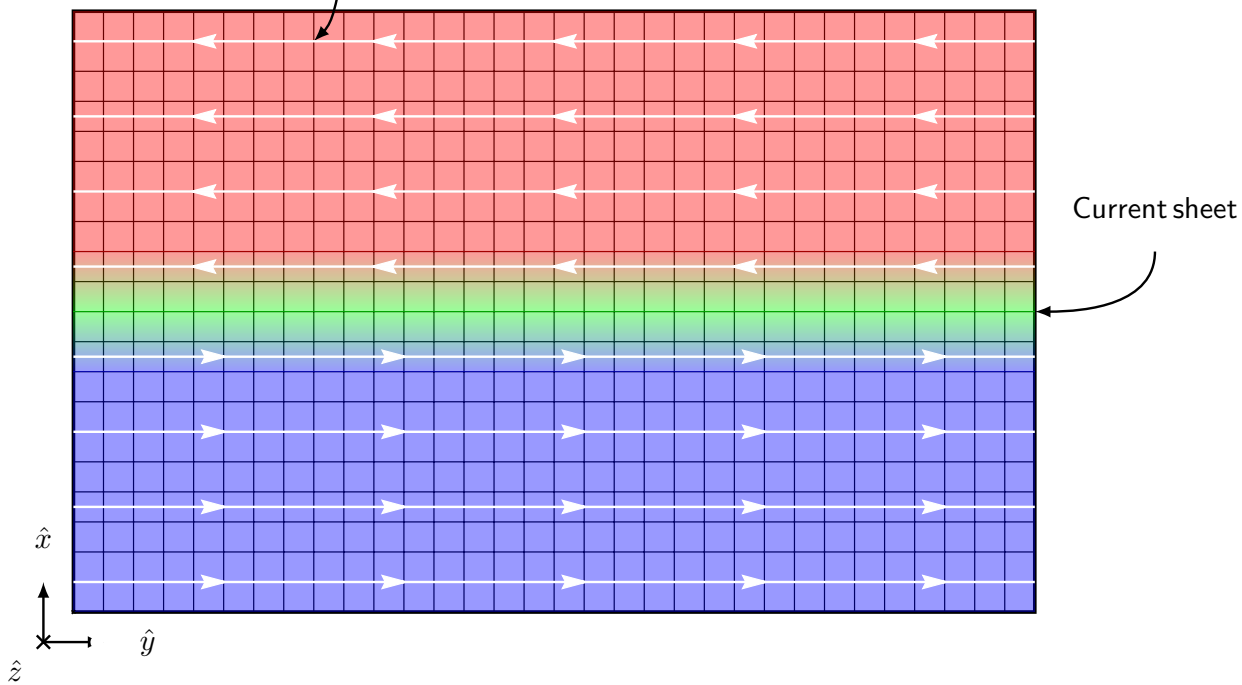


B_y at initialization











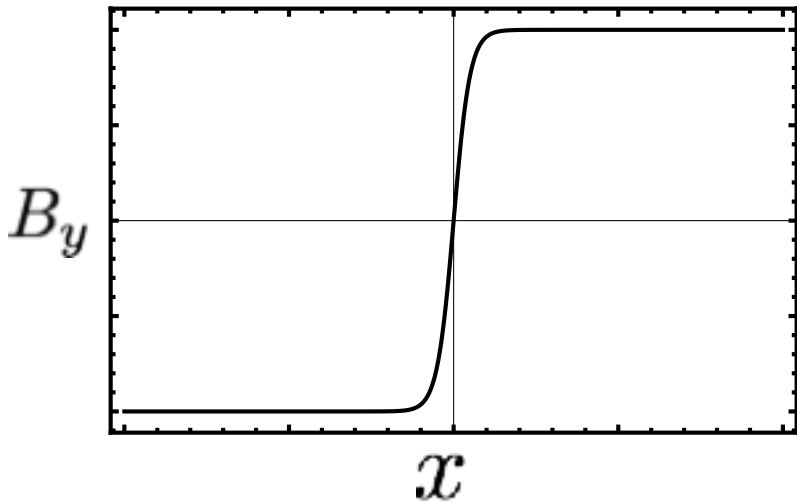












$$\mathbf{B} = B_0 \tanh(x/L) \mathbf{e}_y$$





































A graphic of a purple arrow pointing to the left. The arrow has a thick purple outline and a solid purple fill. Inside the arrow, the word "Outflow" is written in a bold, white, sans-serif font.

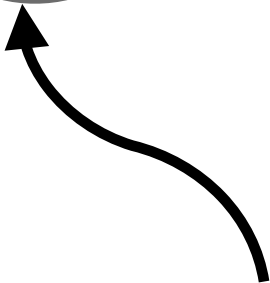
Outflow

A large, stylized purple arrow pointing to the right. The arrow has a thick purple outline and a solid purple fill. Inside the arrow, the word "Outflow" is written in a bold, white, sans-serif font.

Outflow







Remove pressure

Initial By



A large red arrow pointing downwards, with a white outline and a slight drop shadow.

Inflow

A large blue arrow pointing upwards, with a white outline and a slight drop shadow.

Inflow

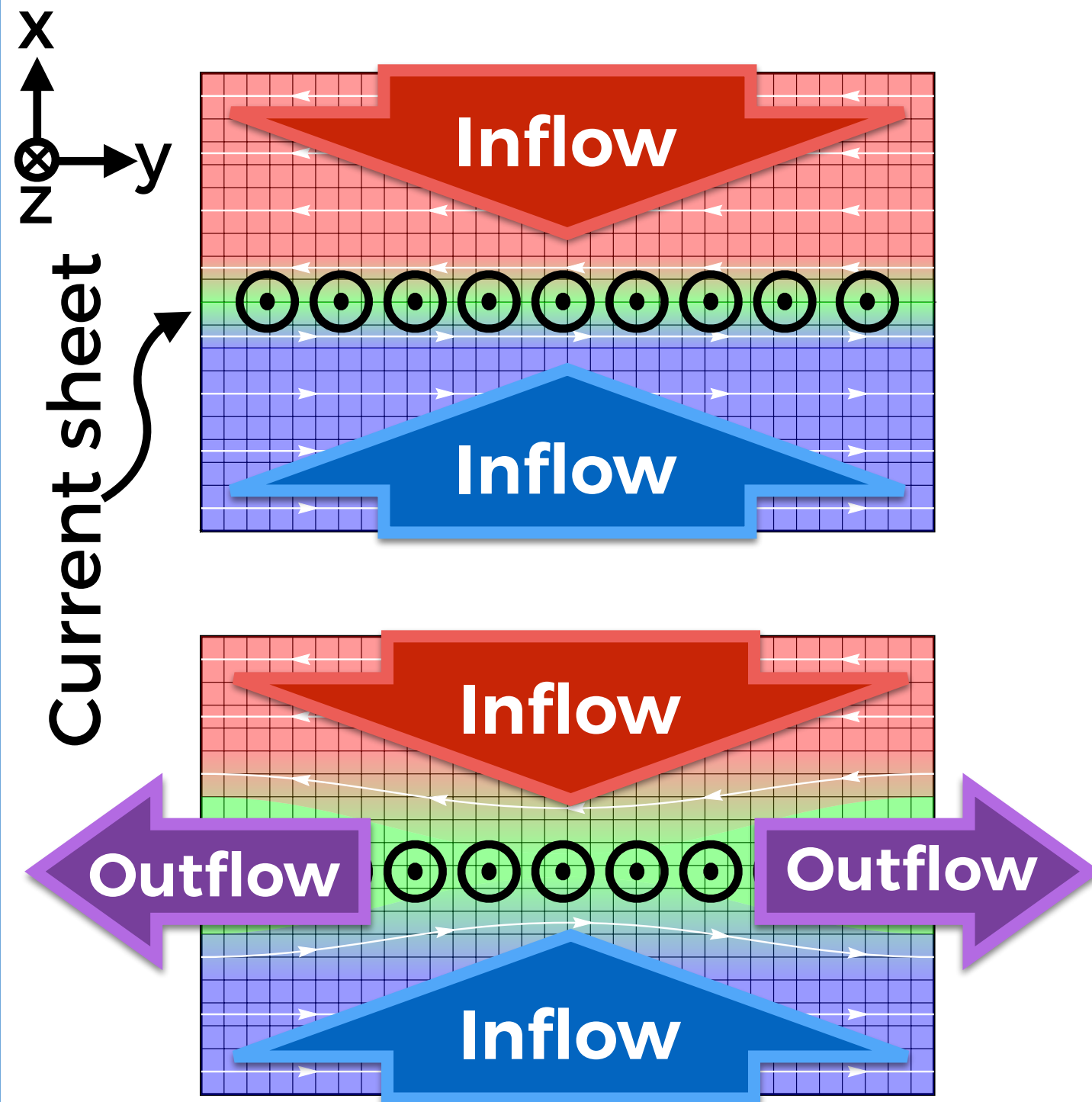
A large red arrow pointing downwards with a white outline and a slight drop shadow.

Inflow

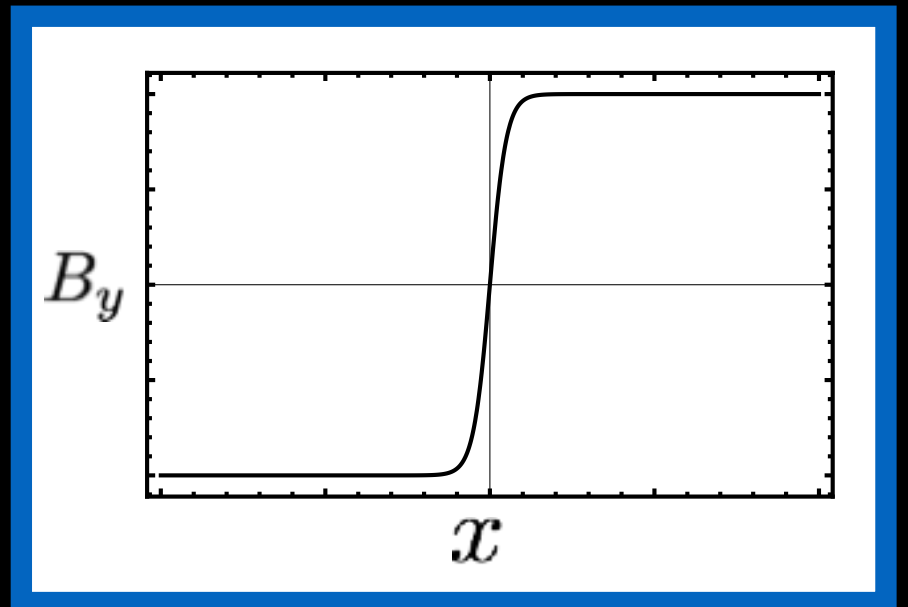
A large blue arrow pointing upwards with a white outline and a slight drop shadow.

Inflow

Start with alternating \vec{B} -field and trigger reconnection



- ▶ B-field initialized in Harris equilibrium



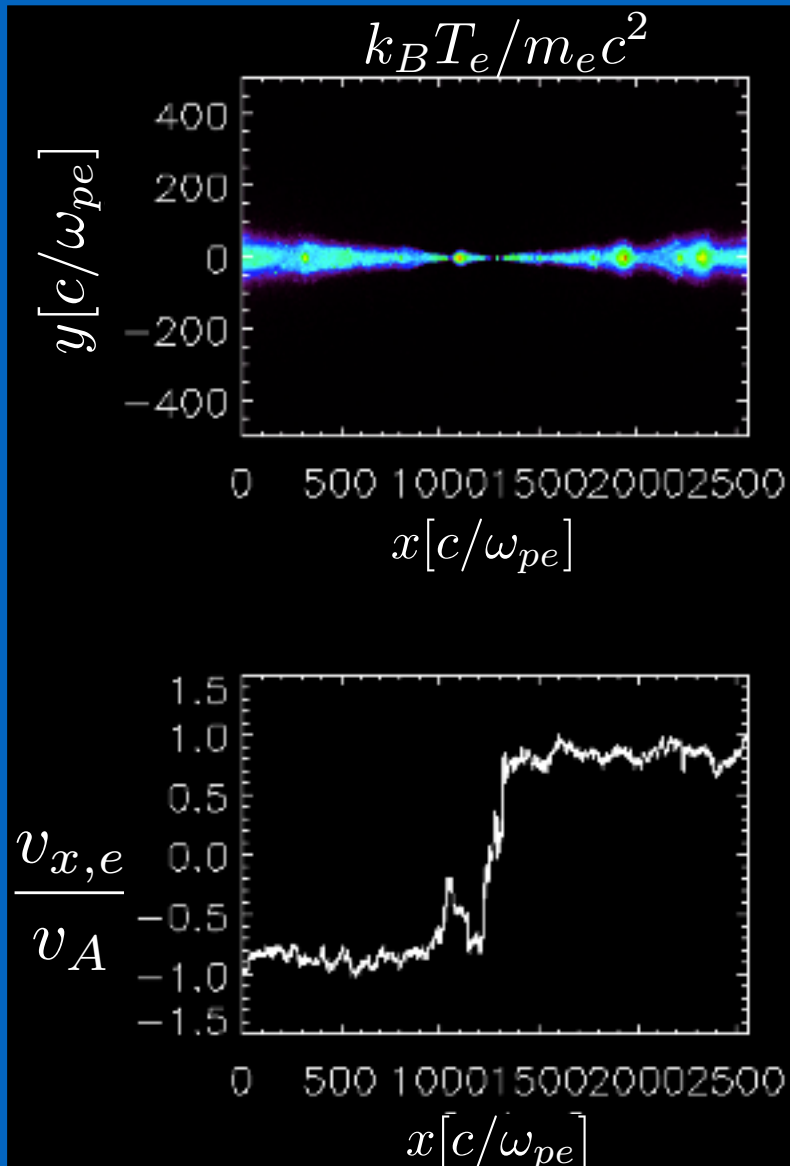
$$\mathbf{B} = B_0 \tanh(x/L) \mathbf{e}_y$$

- ▶ Hot, overdense strip of particles at beginning (green)
- ▶ Remove the particle pressure in center to drive reconnection

Boundary conditions

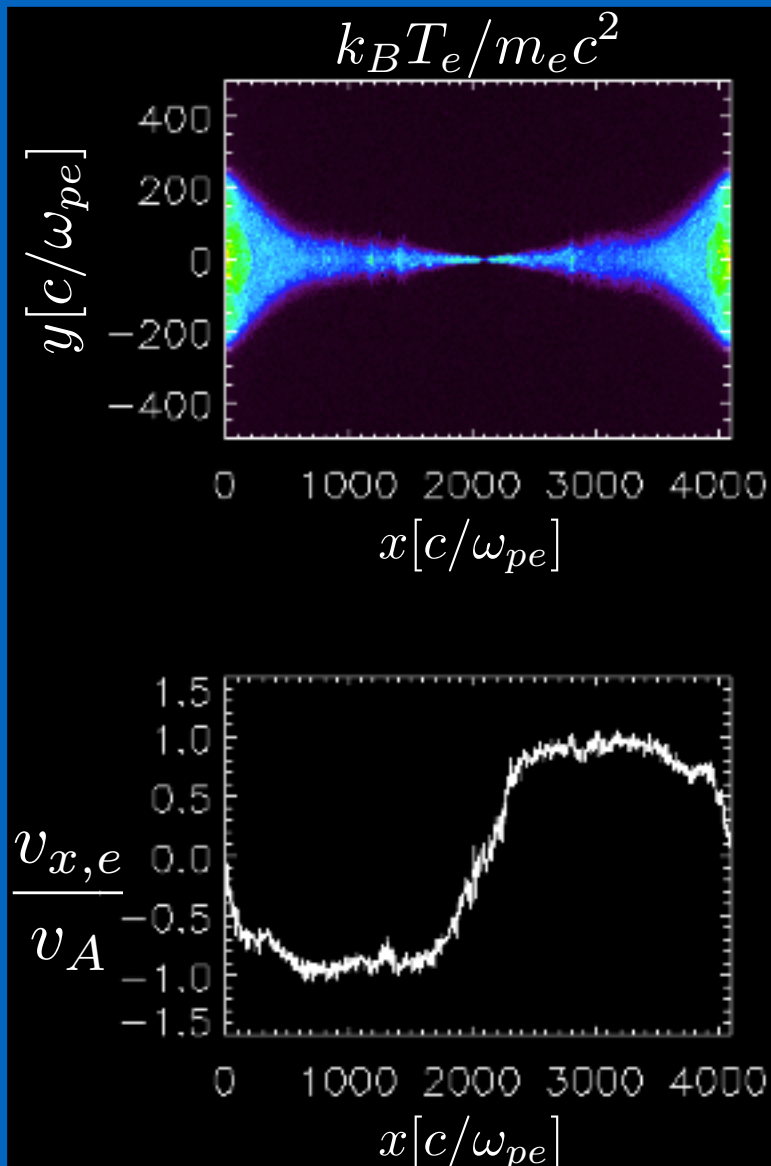
Outflow

- ▶ Particles escape along x-dir.
- ▶ Allows for study of long-term evolution of system



Periodic

- ▶ No particles are lost
- ▶ However, sensitive to boundaries after $1/2$ Alfvén crossing-time



Adaptive

- ▶ Modified version of outflow boundary condition
- ▶ Includes additional controls necessary for high-beta case

