

Equations of motion:  
particle pusher

$$\mathbf{F}_i \rightarrow \mathbf{u}_i \rightarrow \mathbf{x}_i$$

Field interpolation:  
force on particles

$$(\mathbf{E}, \mathbf{B}) \rightarrow \mathbf{F}_i$$

Current deposition  
to grid points

$$(\mathbf{x}, \mathbf{u}) \rightarrow \mathbf{j}$$

Maxwell's equations:  
updating fields

$$\mathbf{j} \rightarrow (\mathbf{E}, \mathbf{B})$$

