

$$\mathbf{F}_{\text{Lorentz}}(\mathbf{r}_i) = q_i (-\mathbf{U}_e(\mathbf{r}_i) \times \mathbf{B}(\mathbf{r}_i) + k_B T_e \nabla(n_e)/(q_e n_e) + \mathbf{v}_i \times \mathbf{B}(\mathbf{r}_i))$$

$$\mathbf{U}_e(\mathbf{r}_i) = \text{NGP}(\text{cellUe})$$

$$\mathbf{E}_p(\mathbf{r}_i) = \text{NGP}(\text{cellEp})$$

$$\mathbf{B}(\mathbf{r}_i) = \text{linear\_intpol}(\text{faceB})$$

