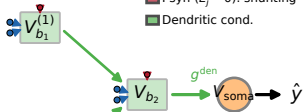
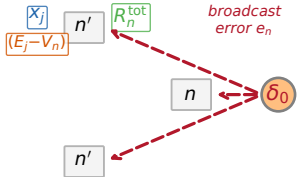


A x_j^E x_j^I ■ E syn ($E_j > 0$)■ I syn ($E_j = 0$): shunting

■ Dendritic cond.



$$V_n^{\text{tot}} = \frac{\sum_j E_j x_j g_j + \sum_j V_j g_j^{\text{den}}}{\sum_j x_j g_j + \sum_j g_j^{\text{den}} + 1}$$

B**Only δ_0 is non-local**

$$\Delta g_j \propto \underbrace{x_j}_{\text{local}} \cdot \underbrace{R_n^{\text{tot}}}_{\text{local}} \cdot \underbrace{(E_j - V_n)}_{\text{broadcast}} \cdot \underbrace{e_n}_{\text{broadcast}}$$

C

$$3F \Delta g \propto x_j (E_j - V_n) \cdot \delta$$

pre \times driving force \times error

$$4F \Delta g \propto x_j (E_j - V_n) \cdot \delta \cdot \rho$$

+ morphology modulator ρ

$$5F \Delta g \propto x_j (E_j - V_n) \cdot \delta \cdot \rho \cdot \phi$$

+ information factor ϕ

Broadcast δ : scalar | per-soma | local mismatch