A

x_j^E

$V_{b_1}^{(1)}$

■ E syn ($E_j > 0$)
■ I syn ($E_j = 0$): shunting
■ Dendritic cond.

$V_{b_1}^{(2)}$

x_j^I

V_{b_2}

g^{den}

V_{soma} → $\hat{y}$

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

B

x_j

$(E_j - V_n)$

n'

R_n^{tot}

broadcast error e_n

n ← → δ_0

n'

Only δ_0 is non-local

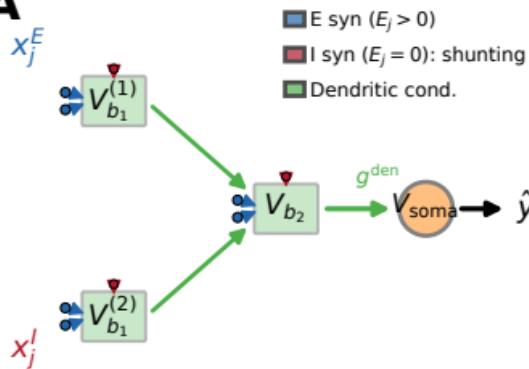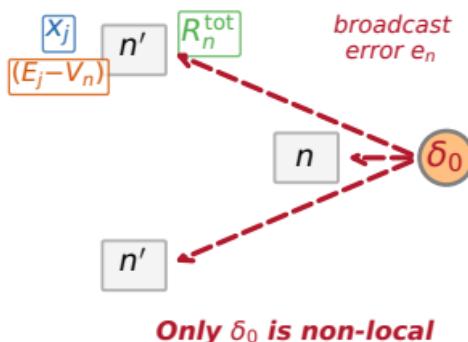$$\Delta g_j \propto x_j \cdot R_n^{tot} \cdot (E_j - V_n) \cdot e_n$$

C

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

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

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

Broadcast δ: scalar | per-soma | local mismatch