Update of permanence P_{ij} and synaptic weight $J_{\mathrm{EE},ij}$ at time t_j^k of the kth spike of presynaptic neuron j:

$x_j \leftarrow$ get trace of presynaptic neuron j ▷ last update at time t_j^{k-1}

$L_{\mathrm{post}}, Z_{\mathrm{post}} \leftarrow$ get lists of postsynaptic spike times and corresponding dAP traces in the interval $(t_j^{k-1} - d_{\mathrm{EE}}, t_j^k - d_{\mathrm{EE}}]$

for t_i, z_i in L_{post}, Z_{post} **do**
  if $\Delta t_{\mathrm{min}} < t_i - t_j^{k-1} + d_{\mathrm{EE}} < \Delta t_{\mathrm{max}}$ **then**
    $P_{ij} \leftarrow P_{ij} + \lambda_+ \cdot P_{\mathrm{max}} \cdot x_j \cdot \exp\big(-(t_i - t_j^{k-1} + d_{\mathrm{EE}})/\tau_+\big)$ ▷ potentiation
    $P_{ij} \leftarrow P_{ij} + \lambda_{\mathrm{h}} \cdot P_{\mathrm{max}} \cdot (z^* - z_i)$ ▷ homeostasis
  end if
end for

$P_{ij} \leftarrow P_{ij} - \lambda_- \cdot P_{\mathrm{max}} \cdot y_i$ ▷ depression

if $P_{ij} > \theta_P$ **then**
  $J_{\mathrm{EE},ij} \leftarrow W$ ▷ mature synapse
else
  $J_{\mathrm{EE},ij} \leftarrow 0$ ▷ immature synapse
end if

$x_j \leftarrow x_j \cdot \exp\big((t_j^{k-1} - t_j^k)/\tau_+\big) + 1$ ▷ update of presynaptic spike trace

Note: the clipping of the permanence P_{ij} at the boundaries of the interval $[P_{\mathrm{min},ij}, P_{\mathrm{max}}]$ is not included here for clarity.