

創域理工学部 情報計算科学科 4年
学籍番号 : 6322045
砂川恵太朗

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 $s_{in_{disc}}^l \leftarrow W^l s_{A_{disc}}^{l-1}$ 
 $s_{in_{gen}}^l \leftarrow V^l s_{A_{gen}}^{l+1}$ 
 $x_{F_{disc}}^l \leftarrow x_{F_{disc}}^l + s_{in_{disc}}^l \cdot T_\theta(t-1)$ 
 $x_{F_{gen}}^l \leftarrow x_{F_{gen}}^l + s_{in_{gen}}^l \cdot T_\theta(t-1)$ 
if  $\gamma^l(t) > 0$  then
   $e_{T_{disc}}^l \leftarrow \alpha_{disc} \cdot (x_T^l - x_{F_{disc}}^l)$ 
   $e_{T_{gen}}^l \leftarrow \alpha_{gen} \cdot (x_T^l - x_{F_{gen}}^l)$ 
   $x_T^l \leftarrow x_T^l + \gamma^l(t) \cdot (-e_{T_{disc}} - e_{T_{gen}} + (x_T^l > 0) \odot (e_{B_{disc}}^l + e_{B_{gen}}^l))$ 
if  $\gamma^l(t) > 0$  then
   $e_{T_{disc}}^l \leftarrow \alpha_{disc} \cdot (x_T^l - x_{F_{disc}}^l)$ 
   $e_{T_{gen}}^l \leftarrow \alpha_{gen} \cdot (x_T^l - x_{F_{gen}}^l)$ 
   $s_A^l \leftarrow \text{sign}(x_T^l - x_A^l) \odot (|x_T^l - x_A^l| > T_\theta(t))$ 
   $s_A^l \leftarrow s_A^l \odot (x_A^l + s_A^l \cdot T_\theta > 0)$ 
   $x_A^l \leftarrow x_A^l + T_\theta(t) \cdot s_A^l$ 
  s_out.send( $s_A^l$ )
e_out.send( $s_{e_{disc}}^l$ )
e_out.send( $s_{e_{gen}}^l$ )
e_in $_{disc}^l \leftarrow (W^{l+1})^\top s_{e_{disc}}^{l+1}$ 
e_in $_{gen}^l \leftarrow (V^{l-1})^\top s_{e_{gen}}^{l-1}$ 
 $e_{B_{disc}}^l \leftarrow e_{B_{disc}}^l + T_\theta(t-1) \cdot e_{in_{disc}}^l$ 
 $e_{B_{gen}}^l \leftarrow e_{B_{gen}}^l + T_\theta(t-1) \cdot e_{in_{gen}}^l$ 
 $s_{e_{disc}}^l \leftarrow \text{sign}(e_{T_{disc}}^l - e_{A_{disc}}^l) \odot (|e_{T_{disc}}^l - e_{A_{disc}}^l| > T_\theta(t))$ 
 $s_{e_{gen}}^l \leftarrow \text{sign}(e_{T_{gen}}^l - e_{A_{gen}}^l) \odot (|e_{T_{gen}}^l - e_{A_{gen}}^l| > T_\theta(t))$ 
 $e_{A_{disc}}^l \leftarrow e_{A_{disc}}^l + T_\theta(t) \cdot s_{e_{disc}}^l$ 
 $e_{A_{gen}}^l \leftarrow e_{A_{gen}}^l + T_\theta(t) \cdot s_{e_{gen}}^l$ 

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$$W^l \leftarrow W^l + \alpha e_{T_{disc}}^l \phi(x_T^{l-1})^\top$$

$$V^l \leftarrow V^l + \alpha e_{T_{gen}}^l \phi(x_T^{l+1})^\top$$