

May 2019

31 Friday

(151 - 214) Wk 22

May

Su	Mo	Tu	We	Th	Fr
•	•	•	1	2	3
5	6	7	8	9	10
12	13	14	15	16	17
19	20	21	22	23	24
26	27	28	29	30	31

Energy Regularization - V,

08:00

$$C = \frac{1}{2} \|d - y^s\|^2 + \lambda \sum_i |E_i|$$

09:00

10:00

$$y_i^f = \sigma(\omega_{ij}^f x_j - (1 - E_i))$$

11:00

$$= \sigma(\omega_{ij}^f x_j + E_i - 1)$$

12:00

$$y_k^s = \sigma(\omega_{ki}^s y_i^f - b_k^s)$$

$$e = \|d - y^s\|$$

13:00

$$\Delta \omega_{ki}^s = e y_k^s (1 - y_k^s) y_i^f \quad \text{--- (1)}$$

14:00

$$\Delta \omega_{ij}^f = e y_k^s (1 - y_k^s) \omega_{ki}^s y_i^f (1 - y_i^f) \cdot x_j$$

15:00

$$\Delta b_k^s = e \cdot y_k^s (1 - y_k^s) \cdot (-1) \quad \text{--- (3)}$$

16:00

$$\Delta E_i = e y_k^s (1 - y_k^s) \omega_{ki}^s y_i^f (1 - y_i^f) \cdot x_j$$

17:00

$$+ \lambda \frac{E_i}{|E_i|}$$

18:00

since  $E_i > 0 \forall i$ ,

19:00

$$\Delta E_i = e y_k^s (1 - y_k^s) \omega_{ki}^s y_i^f (1 - y_i^f) + \lambda$$