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ERRATUM

Erratum to: Functional model of biological neural networks

James Ting-Ho Lo

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Page 5, right column, line 7: Change

$$y_\tau^l = \left[y_\tau^{l\prime}(\mathbf{1}^l) \quad y_\tau^{l\prime}(\mathbf{2}^l) \quad \cdots \quad y_\tau^{l\prime}(\mathbf{N}^l) \right]'$$

to

$$y_\tau^l = [y_\tau^{ll\prime}(\mathbf{1}^l) \quad y_\tau^{ll\prime}(\mathbf{2}^l) \quad \cdots \quad y_\tau^{ll\prime}(\mathbf{N}^l)]'$$

Page 6, right column, line 32: Change "$\breve{a}'\breve{b} = 1$" to "$\breve{a}'\breve{b} = 4$".

Page 7, left column, lines 8–10: A clear version of lines 8–10 follows

2. If $a_k b_k = 0$ for some $k \in \{1, \ldots, m\}$, then

$$\breve{a}'\breve{b} = \prod_{j=1, j \neq k}^{m} (1 + a_j b_j)$$

3. If $\breve{a}'\breve{b} \neq 0$, then $\breve{a}'\breve{b} = 2^{a'b}$.

Page 7, right column, lines 1–2: Change (3) and (4):

$$D(\mathbf{n}(u)) = \Lambda \sum_{t=1}^{T} \Lambda^{T-t} r_t(\mathbf{n}) \breve{x}_t'(\mathbf{n}(u))$$

$$C(\mathbf{n}(u)) = \Lambda \sum_{t=1}^{T} \Lambda^{T-t} \breve{x}_t'(\mathbf{n}(u))$$

to

$$D(\mathbf{n}(u)) = \Lambda \sum_{t=1}^{T} \lambda^{T-t} r_t(\mathbf{n}) \breve{x}_t'(\mathbf{n}(u))$$

$$C(\mathbf{n}(u)) = \Lambda \sum_{t=1}^{T} \lambda^{T-t} \breve{x}_t'(\mathbf{n}(u))$$

Page 7, right column, lines 11–12: Change Eqs. (5) and (6):

$$D(\mathbf{n}(u)) \leftarrow \Lambda D(\mathbf{n}(u)) + \Lambda r_t(\mathbf{n}) \breve{x}_t'(\mathbf{n}(u))$$
$$C(\mathbf{n}(u)) \leftarrow \Lambda C(\mathbf{n}(u)) + \Lambda \breve{x}_t'(\mathbf{n}(u))$$

to

$$D(\mathbf{n}(u)) \leftarrow \lambda D(\mathbf{n}(u)) + \Lambda r_t(\mathbf{n}) \breve{x}_t'(\mathbf{n}(u))$$
$$C(\mathbf{n}(u)) \leftarrow \lambda C(\mathbf{n}(u)) + \Lambda \breve{x}_t'(\mathbf{n}(u))$$

Page 8, left column, lines 10: Change "the successive two-factor multiplication" to "the sequence of successive two-factor multiplications".

Page 8, left column, lines 15: Change "$p_\tau(\mathbf{n})$" to "$y_\tau(\mathbf{n})$ or $p_\tau(\mathbf{n})$".

Page 8, left column, lines 13 from the bottom: Change "$\Lambda = \Lambda = 1$" to "$\Lambda = \lambda = 1$".

Page 8, right column, lines 9–10 from the bottom: Change

$$a_{\tau j}(\mathbf{n}(u)) = \Lambda \sum_{t \in G_{\tau j}(\mathbf{n}(u),+)} 2^{\dim \mathbf{n}(u)} \Lambda^{T-t}$$

$$c_\tau(\mathbf{n}(u)) = \Lambda \sum_{t \in G_\tau(\mathbf{n}(u))} 2^{\dim \mathbf{n}(u)} \Lambda^{T-t}$$

to

$$a_{\tau j}(\mathbf{n}(u)) = \Lambda \sum_{t \in G_{\tau j}(\mathbf{n}(u),+)} 2^{\dim \mathbf{n}(u)} \lambda^{T-t}$$

$$c_\tau(\mathbf{n}(u)) = \Lambda \sum_{t \in G_\tau(\mathbf{n}(u))} 2^{\dim \mathbf{n}(u)} \lambda^{T-t}$$

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J. T.-H. Lo (✉)
Department of Mathematics and Statistics, University of Maryland Baltimore County, Baltimore, MD 21250, USA
e-mail: jameslo@umbc.edu

Page 8, right column, line 3 from the bottom: Change

$$\frac{a_{\tau j}(\mathbf{n})}{c_\tau(\mathbf{n})} = \frac{\sum_{u=1}^{U}\sum_{t\in G_{\tau j}((u),+)}\Lambda^{T-t}}{\sum_{u=1}^{U}\sum_{t\in G_\tau((u))}\Lambda^{T-t}}$$

to

$$\frac{a_{\tau j}(\mathbf{n})}{c_\tau(\mathbf{n})} = \frac{\sum_{u=1}^{U}\sum_{t\in G_{\tau j}((u),+)}\lambda^{T-t}}{\sum_{u=1}^{U}\sum_{t\in G_\tau(\mathbf{n}(u))}\lambda^{T-t}}$$

Page 9, left column, line 15: Change "$C(\mathbf{n})$" to "$\mathbf{I}C(\mathbf{n})$".

Page 12, left column, line 12: Change

$$a_\tau(\mathbf{n}) := \frac{1}{2}(c_\tau(\mathbf{n}) + d_\tau(\mathbf{n}))$$

to

$$a_\tau(\mathbf{n}) := \frac{1}{2}(\mathbf{I}c_\tau(\mathbf{n}) + d_\tau(\mathbf{n}))$$

Page 12, left column, line 19: Change "$c_\tau(\mathbf{n}(u))$" to "$\mathbf{I}c_\tau(\mathbf{n}(u))$".

Page 12, left column, line 20: Change "$c_\tau(\mathbf{n})$" to "$\mathbf{I}c_\tau(\mathbf{n})$".

Page 12, left column, line 26: Change

$$[d_{\tau 1}(\mathbf{n})/c_{\tau 1}(\mathbf{n}) \quad d_{\tau 2}(\mathbf{n})/c_{\tau 2}(\mathbf{n}) \quad \cdots \quad d_{\tau R}(\mathbf{n})/c_{\tau R}(\mathbf{n})]'$$

to

$$[d_{\tau 1}(\mathbf{n})/c_{\tau}(\mathbf{n}) \quad d_{\tau 2}(\mathbf{n})/c_{\tau}(\mathbf{n}) \quad \cdots \quad d_{\tau R}(\mathbf{n})/c_{\tau}(\mathbf{n})]'$$

Page 15, right column, line 16: Change "$\Omega(i)$" to "$\omega(i)$".

Page 15, right column, line 7 from the bottom: Change "$\Omega(i)$" to "$\omega(i)$".

Page 15, right column, line 3 from the bottom: Change "$\Omega(i)$" to "$\omega(i)$".

Page 15, right column, line 2 from the bottom: Change "$\{x_t(\mathbf{n}(u,\Omega)), \Omega \in \Omega(\mathbf{n})\}$" to "$\{x_t(\mathbf{n}(u,\omega)), \omega \in \Omega(\mathbf{n})\}$".

Page 16, left column, line 4: Change "$\Omega(i)$" to "$\omega(i)$".

Page 16, left column, line 5: Change "$\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}_t(\mathbf{n}(u,\Omega))$" to "$\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}_t(\mathbf{n}(u,\omega))$".

Page 16, left column, lines 12–13: Change

$$C(\mathbf{n}(u)) = \Lambda\sum_{t=1}^{T}\Lambda^{T-t}\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\Omega))$$

$$D(\mathbf{n}(u)) = \Lambda\sum_{t=1}^{T}\Lambda^{T-t}r_t(\mathbf{n})\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\Omega))$$

to

$$C(\mathbf{n}(u)) = \Lambda\sum_{t=1}^{T}\lambda^{T-t}\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\omega))$$

$$D(\mathbf{n}(u)) = \Lambda\sum_{t=1}^{T}\lambda^{T-t}r_t(\mathbf{n})\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\omega))$$

Page 16, left column, line 17: Change

$$\Lambda D(\mathbf{n}(u)) + \Lambda r_\tau(\mathbf{n})\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\Omega))$$

to

$$\lambda D(\mathbf{n}(u)) + \Lambda r_\tau(\mathbf{n})\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\omega))$$

Page 16, left column, line 18: Change

$$\Lambda C(\mathbf{n}(u)) + \Lambda\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\Omega))$$

to

$$\lambda C(\mathbf{n}(u)) + \Lambda\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(u,\omega))$$

Page 16, left column, line 20: Change "$\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}_t(\mathbf{n}(u,\Omega))$" to "$\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}_t(\mathbf{n}(u,\omega))$".

Page 16, left column, line 26: Change

$$\breve{x}'_t(\mathbf{n},\Omega) = \left[\sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(1,\Omega)) \quad \cdots \quad \sum_{\Omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(2,\Omega))\right]$$

to

$$\breve{x}'_t(\mathbf{n},\Omega) = \left[\sum_{\omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(1,\omega)) \quad \cdots \quad \sum_{\omega\in\Omega(\mathbf{n})}\breve{x}'_t(\mathbf{n}(2,\omega))\right]$$