CORRECTIONS ON THEORY OF OPERATOR ALGEBRAS VOLUME I

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Page 5, line ↑ 6:

$$x^{-1} = x_0^{-1} + \sum_{n=0}^{\infty} [x_0(x_0 - x)]^n x_0^{-1}$$
$$\Downarrow$$
$$x^{-1} = x_0^{-1} + \sum_{n=1}^{\infty} [x_0(x_0 - x)]^n x_0^{-1}$$

Page 7, line ↑ 8:

$$(x - \lambda 1)^{-1} = \frac{1}{\lambda}\left(\frac{1}{\lambda} - x\right)^{-1}$$
$$\Downarrow$$
$$(x - \lambda 1)^{-1} = \frac{1}{\lambda}\left(1 - \frac{x}{\lambda}\right)^{-1}$$

Page 15, line ↑ 16

$$|\omega(x)| \leq \lim_{n\to\infty} \|\omega\|^n \|x^n\|^{\frac{1}{n}}$$
$$\Downarrow$$
$$|\omega(x)| \leq \lim_{n\to\infty} \|\omega\|^{\frac{1}{n}} \|x^n\|^{\frac{1}{n}}$$

Page 17, line ↑ 11, 12

$$\|x^{2^n}\| = \|(x^*x)^{2^{n-1}}\|^2 = \cdots = \|x^*x\|^{2^{n-1}}$$
$$\Downarrow$$
$$\|x^{2^n}\| = \|(x^*x)^{2^{n-1}}\| = \cdots = \|x^*x\|^{2^{n-1}}$$

Page 27, between line $\uparrow 1$ and $\uparrow 3$:

$$\begin{aligned}\|x(1-u_\varepsilon)^{1/2}\| &= \|\varepsilon x(h+\varepsilon)^{-1/2}\| \\ &= \varepsilon\|(h+\varepsilon)^{-1/2}x^*x(h+\varepsilon)^{-1/2}\|^{1/2} \\ &= \varepsilon\|(h+\varepsilon)^{-1}h\| \le \varepsilon \\ &\Downarrow \\ \|x(1-u_\varepsilon)^{1/2}\| &= \|\varepsilon^{1/2}x(h+\varepsilon)^{-1/2}\| \\ &= \varepsilon^{1/2}\|(h+\varepsilon)^{-1/2}x^*x(h+\varepsilon)^{-1/2}\|^{1/2} \\ &= \varepsilon^{1/2}\|(h+\varepsilon)^{-1}h\| \le \varepsilon^{1/2}.\end{aligned}$$

Page 28, line $\downarrow 1$:

$$\|x(1-u_\varepsilon)^{1/2}\| \le \varepsilon \quad \Rightarrow \quad \|x(1-u_\varepsilon)^{1/2}\| \le \varepsilon^{1/2}.$$

Page 28, line $\downarrow 6$:

$$\|x(1-u_\varepsilon)^{1/2}\| \le \varepsilon \quad \Rightarrow \quad \|x(1-u_\varepsilon)^{1/2}\| \le \varepsilon^{1/2}$$

Page 33, line$\downarrow 2$

$$\begin{array}{ccc}\mathfrak{m}_{\Gamma_\mathfrak{m}} \supset \mathfrak{m}_\Gamma & \text{and} & \Gamma_{\mathfrak{m}_\Gamma} \supset \Gamma \\ \Downarrow & & \\ \mathfrak{m}_{\Gamma_\mathfrak{m}} \supset \mathfrak{m} & \text{and} & \Gamma_{\mathfrak{m}_\Gamma} \supset \Gamma\end{array}$$

Page 39, line $\downarrow 8$:

$$\begin{aligned}\lim\omega((x^*u_i)^*)^- &= \omega(x^*)^- \\ &= \overline{\omega(x)} \\ &\Downarrow \\ \lim\omega((x^*u_i)^*)^- &= \overline{\omega(x^{**})} \\ &= \overline{\omega(x)}\end{aligned}$$

Page 38, line $\uparrow 5$:

$$\widetilde{A} \quad \Rightarrow \quad A_I$$

Page 38, line $\uparrow 3$:

$$\omega((xa^*)^*(xa)) \ge 0 \quad \Rightarrow \quad \omega((xa^*)^*(xa^*)) \ge 0$$

Page 39, line ↑ 9 :

$$\cdots \leq |\omega\left(\frac{1}{2}(x+x^*)\right)+\cdots$$
$$\Downarrow$$
$$\cdots \leq \left|\omega\left(\frac{1}{2}(x+x^*)\right)\right|+\cdots$$

Page52, line ↓ 13 :

$$\{\pi_2, \mathfrak{H}\} \quad \Rightarrow \quad \{\pi_2, \mathfrak{H}_2\}$$

Page 63, line ↑ 13 and ↑ 4 :

$$x \in \mathcal{C}(\mathfrak{H}) \quad \Rightarrow \quad x \in \mathcal{LC}(\mathfrak{H})$$

Page 69, line ↑ 18 :

$$\omega(x) = (x\tilde{\xi} \mid \tilde{\eta}), \quad x \in \mathcal{L}(\mathfrak{H}).$$
$$\Downarrow$$
$$\omega(x) = (\tilde{x}\tilde{\xi} \mid \tilde{\eta}), \quad x \in \mathcal{L}(\mathfrak{H}).$$

Page 73, line ↑ 11 :

$$U_i^*\tilde{x}U_i = U_j^*xU_j. \quad \Rightarrow \quad U_i^*\tilde{x}U_i = U_j^*\tilde{x}U_j.$$

Page 75, line ↑ 4 :

$$(\mathcal{M}_e')' = \mathcal{M}_e' \quad \Rightarrow \quad (\mathcal{M}_e)' = (\mathcal{M}')_e$$

Page 81, line ↑ 9 :

$$\cdots - (k-\mathrm{i})(k+\mathrm{i})\xi\| \quad \Rightarrow \quad \cdots - (k-\mathrm{i})(k+\mathrm{i})^{-1}\xi\|$$

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