

Corrections for *Mathematical Risk Analysis*  
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We thank Tomonari Sei for several corrections.

red = to be replaced, green = to be inserted

| page                      | replace this text   | correct text  |
|---------------------------|---|---|
| 4 <sub>4</sub>            | $P(\textcolor{red}{X} < x)$   | $P(Y < x)$  |
| 13 <sub>6</sub>           | $(\textcolor{red}{2} - 2\vartheta)_{\{\vartheta \leq x \leq 1-\vartheta\}}$   | $(1 - 2\vartheta)_{\{\vartheta \leq x \leq 1-\vartheta\}}$                  |
| 13 <sub>6</sub>           | $(1 - x - \textcolor{red}{y})1_{\{0 \leq x \leq \vartheta\}}$   | $(1 - x - \vartheta)1_{\{0 \leq x \leq \vartheta\}}$                        |
| 13 <sub>6</sub>           | $(x - \textcolor{red}{y})1_{\{x > 1-\vartheta\}}$   | $(x - \vartheta)1_{\{x > 1-\vartheta\}}$                                    |
| 13 <sub>4</sub>           | $(\vartheta - x)_{\{x < 1-\vartheta\}}$   | $(1 - \vartheta - x)_{\{x < 1-\vartheta\}}$                                 |
| 15 <sub>8</sub><br>(1.41) | $F_{\textcolor{red}{d}}(x_{\textcolor{red}{d}}, \lambda_{\textcolor{red}{d}}   x_1, \dots, x_{\textcolor{red}{d}-1})$ | $F_n(x_n, \lambda_n   x_1, \dots, x_{n-1})$                                 |
| 19 <sub>5</sub><br>(1.56) | $c_{i-1, i x_1, \dots, x_{i-2}} f_{i x_1, \dots, x_{i-1}}(x_i)$   | $c_{i-1, i x_1, \dots, x_{i-2}} f_{i x_1, \dots, x_{i-2}(x_i)}$             |
| 19 <sub>3</sub><br>(1.57) | $\prod_{i=2}^n \prod_{k=1}^{i-1} c_{i-1, i 1, \dots, i-k-1} f_{\textcolor{red}{k}}(x_i)$                              | $\prod_{i=2}^n \prod_{k=1}^{i-1} c_{i-1, i 1, \dots, i-k-1} f_i(x_i)$       |
| 19 <sub>2</sub><br>(1.57) | $\left( \prod_{i=2}^n \prod_{k=1}^{\textcolor{red}{k}-1} c_{i-1, i 1, \dots, i-k-1} \right)$                          | $\left( \prod_{i=2}^n \prod_{k=1}^{i-1} c_{i-1, i 1, \dots, i-k-1} \right)$ |
| 25 <sup>9</sup>           | $\textcolor{red}{Q} \stackrel{d}{=} Q$  | $Y \stackrel{d}{=} Q$   |
| 31 <sub>7</sub><br>(1.86) | $f_{(1)} := f_{R_1}$  | $f_{(1)} := \textcolor{teal}{f} - f_{R_1}$                                  |
| 33 <sup>7</sup>           | where $g^{T_J} = 0$ if $T_J$ is empty   | where $g^{T_J} = 1$ if $T_J$ is empty                                       |
| 33 <sub>1</sub>           | $h_{R_1^c} = g^{T_1}$   | $h_{R_1} = g^{T_1}$   |
| 34 <sup>14</sup>          | $f_{23}(x_1, x_3)$  | $f_{23}(x_2, x_3)$  |
| 42 <sub>17</sub>          | $S \leq \textcolor{red}{U}$   | $S \leq I$  |

| page                       | replace this text   | correct text   |
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| 43 <sup>6</sup>            | $\mathcal{L}^1(E, \mathcal{R}, P)$  | $\mathcal{L}^1(E, \mathfrak{R}, P)$  |
| 43 <sup>8,9,10</sup>       | $P \in \tilde{\mathcal{M}}; \textcolor{red}{P} \in \mathcal{M}$                                   | $\tilde{P} \in \widetilde{\mathcal{M}}$  |
| 45 <sup>5,7,13</sup>       | $\mathcal{M}_1(E, \mathfrak{A})$ resp. $\textcolor{red}{M}^1(E, \mathfrak{A})$                    | $\mathcal{M}^1(E, \mathfrak{A})$   |
| 48 <sup>13</sup><br>(2.42) | $\textcolor{red}{M}(Q, P_{n+1})$  | $\mathcal{M}(Q, P_{n+1})$  |
| 48 <sub>12</sub>           | $M(A_1 \times \cdots \times A_n)$   | $M(A_1 \times \cdots \times A_{n+1})$  |
| 48 <sub>12</sub>           | $\sup_{P \in \textcolor{red}{M}(Q, P_{n+1})}$   | $\sup_{P \in \mathcal{M}(Q, P_{n+1})}$   |
| 49 <sub>6</sub>            | $\sum_{i=1}^n (F_i(b_i) - F_i(a_i))$  | $\sum_{i=1}^n (F_i(b_i) - F_i(a_i) - (\textcolor{teal}{n} - 1))_+$               |
| 63 <sub>4</sub>            | $(\textcolor{red}{R}^n, \mathcal{B}^n); \textcolor{red}{R}^1$                                     | $(\mathbb{R}^n, \mathfrak{B}^n); \mathbb{R}^1$                                   |
| 72 <sup>2</sup>            | $\text{VaR}_\alpha \left( \sum_{i=1}^n X_i \right) \leq M_n^{-1}(\alpha)$                         | $\text{VaR}_\alpha \left( \sum_{i=1}^n X_i \right) \geq M_n^{-1}(\alpha)$        |
| 75 <sup>19</sup>           | $\lambda^{F_i^{-1} \circ \varphi} = \textcolor{red}{\varphi}^{F_i^{-1}}$                          | $\lambda^{F_i^{-1} \circ \varphi} = \lambda^{F_i^{-1}}$                          |
| 76 <sup>9</sup>            | $M_n(t) \geq P(f_1^\alpha + \cdots + f_n^\alpha) \leq \textcolor{red}{t}$                         | $M_n(t) \geq P(f_1^\alpha + \cdots + f_n^\alpha \leq t)$                         |
| 81 <sub>10</sub>           | and decreasing in $t$   | and increasing in $t$  |
| 83 <sup>7,9</sup>          | $\sum_{i=1}^n \textcolor{red}{X}_i$   | $\sum_{i=1}^n x_i$   |
| 83 <sub>6</sub>            | $\overbrace{\dots}^{\dots} - \textcolor{red}{d} + 1$  | $\overbrace{\dots}^{\dots} - n + 1$  |
| 84 <sub>6</sub>            | $\inf_{\textcolor{red}{s} \in [0, s/n]} \frac{f_{\dots}}{t - nr}$                                 | $\inf_{r \in [0, s/n]} \frac{f_{\dots}}{s - nr}$                                 |
| 84 <sub>6</sub>            | $P \left( \sum_{i=1}^n X_i \geq s \right)$  | $P \left( \sum_{i=1}^n X_i < s \right)$  |
| 85 <sup>10</sup>           | $\geq 1_{[s, \infty)}$  | $\geq 1_{[s, \infty)} \left( \sum_{i=1}^n \textcolor{teal}{x}_i \right)$         |
| 85 <sub>5</sub>            | $g_a(x) := \begin{cases} \dots \\ \dots, \text{if } \textcolor{red}{a} \leq \\ \dots \end{cases}$ | $g_a(x) := \begin{cases} \dots \\ \dots, \text{if } t \leq \\ \dots \end{cases}$ |
| 92 <sub>6</sub>            | $G$ be a $\textcolor{red}{d}$ -dimensional  | $G$ be an $n$ -dimensional   |
| 93 <sub>11</sub>           | when $\textcolor{red}{d} = 2$   | when $n = 2$   |
| 94 <sup>3</sup>            | $G$ and $\bar{G}$   | $G$ and $\textcolor{teal}{1} - \bar{G}$  |

| page                 | replace this text   | correct text                                      |
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| 146 <sup>6</sup>     | $\textcolor{red}{X} = L^0$  | $\mathcal{X} = L^0$                               |
| 156 <sup>13</sup>    | $Q \in \textcolor{red}{M}_1$  | $Q \in \mathcal{M}_1$                             |
| 171 <sup>8</sup>     | $L_{\textcolor{red}{\alpha}}^\infty(P)$                               | $L_0^\infty(P)$                                   |
| 173 <sub>13</sub>    | Lemma 2.2   | Lemma 2.3   |
| 186 <sub>8</sub>     | $\varrho(\textcolor{red}{Y})$   | $\varrho(X)$                                      |
| 212 <sub>16</sub>    | $:= \sup_{\tilde{X}_i \sim X_i}$ (both occurrences)                   | $:= \inf_{\tilde{X}_i \sim X_i}$                  |
| 212 <sub>3</sub>     | Then it <b>it</b> holds that:   | Then it holds that:                               |
| 318 <sup>13</sup>    | Theorem 12.14   | Theorem 12.12                                     |
| 321 <sup>2</sup>     | $(X^c - d^*)$   | $(X^c - d^*)_+$                                   |
| 345 <sub>12,11</sub> | $(\Psi f^{\textcolor{red}{1}} - (\Psi f)^{\textcolor{red}{1}})^{1/2}$ | $(\Psi f^2 - (\Psi f)^2)^{1/2}$                   |
| 346 <sup>11</sup>    | $-(\textcolor{red}{\Psi} f \cdot 1_{B_\delta})$                       | $-\Psi(\textcolor{teal}{f} \cdot 1_{B_\delta})$   |
| 347 <sup>13</sup>    | (13.5)  | (13.50)   |
| 347 <sub>1</sub>     | $(\mathbb{G}_{\textcolor{violet}{\psi}}, \dots)$                      | $(\mathbb{G}_{k, \textcolor{teal}{\psi}}, \dots)$ |
| 350 <sub>10</sub>    | VaR <sub>1-<math>\lambda</math></sub>                                 | VaR $_{\lambda}$                                  |
| 378 <sub>16</sub>    | $-\nu_i^*(-[\infty, x]^c)$  | $-\nu_i^*(-(\infty, x]^c)$                        |