# Error List of "Modeling, Measuring and Managing Risk"

by G.Ch. Pflug and Werner Römisch

- Page 10, line 2 from above. Instead of

$$\begin{aligned}\mathbb{P}\{G_1^{-1}(U) \leq u, G_2^{-1}(1-U) \leq v\} &= \mathbb{P}\{1 - G_2(u) \leq U \leq G_1(u)\} \\ &= \max(G_1(u) + G_2(v) - 1, 0).\end{aligned}$$

  it should be:

$$\begin{aligned}\mathbb{P}\{G_1^{-1}(U) \leq u, G_2^{-1}(1-U) \leq v\} &= \mathbb{P}\{1 - G_2(v) \leq U \leq G_1(u)\} \\ &= \max(G_1(u) + G_2(v) - 1, 0).\end{aligned}$$

- Page 15, line 7 from above. Instead of
  "The IDF and the IQF are related by *Young's inequality*

$$\mathcal{G}(u) + \mathcal{G}^{[-1]}(q) \leq uq \quad \text{for } u \in \mathbb{R}, q \in (0,1) \tag{1.18}$$

  where equality holds if and only if $G(u) = q$. The validity of this inequality can be easily seen from Figure 1.4: The sum of the two areas 1 and 2 is less than or equal to $uq$."

  it should be:

  "The IDF and the IQF are related by *Young's inequality*

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  where equality holds if and only if $G(u) = q$. The validity of this inequality can be easily seen from Figure 1.4: The sum of the two areas 1 and 2 is greater than or equal to $uq$."

- Page 34, line 13 from above. Instead of

$$\mathcal{R}\{G\} = \int U(v)\, dK \circ G(v) = \int \Big[ \int U(v)\, dK(v|w) \Big] dG(w)$$

  it should be

$$\mathcal{R}\{K \circ G\} = \int U(v)\, dK \circ G(v) = \int \Big[ \int U(v)\, dK(v|w) \Big] dG(w).$$

- Page 39, line 15 from above. Instead of: (R4) it should be: (R3).
- Page 48, line 12 from below. Instead of: see Section 2.2.3 it should be: see Section 2.3.
- Page 87, line 5 from below. Instead of

  $\mathbb{E}[\mathbb{1}_B \mathcal{A}_H(Y)] = \inf\{\mathbb{E}(Y\,Z) : Z = Z\mathbb{1}_B, Z = h(U), U \sim \text{ uniform}[0,1]\}.$

  the correct expression is

  $\mathbb{E}[\mathbb{1}_B \mathcal{A}_H(Y|\mathcal{F}_1)] = \inf\{\mathbb{E}(Y\,Z) : \mathbb{E}(\phi(Z)|\mathcal{F}_1) \le \mathbb{1}_B \int \phi(h(u))\,du, \phi \text{ convex }, \phi(0) = 0\}.$

- Page 90, line 8 from below. Instead of:

$$\mathbb{E}\left(\frac{L}{\pi_\alpha(L)}\right) = 1 - \alpha$$

  it should read

$$\mathbb{E}h\left(\frac{L}{\pi_\alpha(L)}\right) = 1 - \alpha.$$

- Page 98, line 9 from top: Instead of:

$$\delta(1-\epsilon)(a+b) > 0$$

  it should read:

$$\delta(1-\epsilon)(a+b) > 1$$

- Page 102, top. Instead of:
  By (2.79), the representation of $\mathbb{E} - \mathbb{S}\text{td}$ is

$$\mathbb{E}(Y) - \mathbb{S}\text{td}(Y) = \inf\left\{\mathbb{E}(Y\,Z) : \mathbb{E}(Z) = 0, \mathbb{E}[(1-Z)^2] \le 1\right\}$$

  which is the same as

$$\mathbb{E}(Y) - \mathbb{S}\text{td}(Y) = \inf\left\{\mathbb{E}(Y\,Z) : \mathbb{E}(Z) = 0, \mathbb{E}[Z^2] \le 2\right\}. \quad (2.101)$$

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- Page 112, line 16 from below. Instead of: "version-dependent" it should read: "version-independent".
- Page 148, line 12 from above. Instead of

$$\mathbb{E}[\mathbb{AV@R}_\alpha(Y)] = \min\{\mathbb{E}(Y\,Z) : \mathbb{E}(Z|\mathcal{F}_1) = 1, 0 \le Z \le 1/\alpha\}$$

  it should read

$$\mathbb{E}[\mathbb{AV@R}_\alpha(Y|\mathcal{F}_1)] = \min\{\mathbb{E}(Y\,Z) : \mathbb{E}(Z|\mathcal{F}_1) = 1, 0 \le Z \le 1/\alpha\}.$$

- Page 150, line 6 from above. Instead of: (see Example 2.12 (ii)) it should read: (see Example 3.12 (ii)).
- Page 153, line 11 from above. Instead of

$$\mathbb{AV@R}_{\alpha,c}(Y, \boldsymbol{\mathcal{F}}) = \sum_{t=1}^{T} \mathbb{E}[Y_{t-1}^{b_t}] \cdot \mathbb{AV@R}_\alpha[\exp(\eta_t)]$$

  it should read

$$\mathbb{AV@R}_{\alpha,c}(Y, \boldsymbol{\mathcal{F}}) = \sum_{t=1}^{T} c_t \mathbb{E}[Y_{t-1}^{b_t}] \cdot \mathbb{AV@R}_\alpha[\exp(\epsilon_t)].$$

- Page 220, line 5 from below. Instead of

$$w = Cu + \xi$$

  it should read

$$W = Cu + \xi.$$