ERRATUM

Copula-based mixed models for bivariate rainfall data: an empirical study in regression perspective

Francesco Serinaldi

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Equations (6), (7), (12), and (13) are incorrect because of a misprint. In these formulas, $\partial C(u,v)/\partial u$ should be $\partial^2 C(u,v)/\partial u \partial v = c(u,v)$. The correct forms of the abovementioned equations are presented as follows:

$$
\begin{cases}
E[Y|X=0] = \dfrac{p_{01}}{p_{00}+p_{01}} \displaystyle\int_0^{+\infty} y h_Y(y) dy \\[3mm]
E[Y|X=x,X>0] = \dfrac{p_{11}f(x)}{p_{10}h_X(x)+p_{11}f(x)} \\[3mm]
\hspace{3cm} \displaystyle\int_0^1 G^{-1}(v)c(u,v)dv,
\end{cases}
\tag{6}
$$

$$
\begin{cases}
Var[Y|X=0] = \dfrac{p_{01}}{p_{00}+p_{01}} \displaystyle\int_0^{+\infty} y^2 h_Y(y) dy - E^2[Y|X=0] \\[3mm]
Var[Y|X=x,X>0] \\[3mm]
\quad = \dfrac{p_{11}f(x)}{p_{10}h_X(x)+p_{11}f(x)} \displaystyle\int_0^1 (G^{-1}(v))^2 c(u,v)dv \\[3mm]
\quad - E^2[Y|X=x,X>0]
\end{cases},
\tag{7}
$$

$$
\begin{cases}
E[Y|X=0] = \dfrac{p_{01}}{p_{00}+p_{01}} \\[3mm]
\quad \displaystyle\int_0^{+\infty} y\Big[(\kappa_Y+1)v_Y[G(y)]^{v_Y-1} - \kappa_Y\Big] g(y) dy \\[3mm]
E[Y|X=x,X>0] = \dfrac{\kappa_X}{(\kappa_X+1)v_X[F(x)]^{v_x-1}} \\[3mm]
\quad \displaystyle\int_0^1 G^{-1}(v)c(u,v)dv,
\end{cases}
\tag{12}
$$

and

F. Serinaldi (✉)
Dipartimento di Idraulica Trasporti e Strade, ''Sapienza''
Università di Roma, Via Eudossiana 18, 00184 Rome, Italy
e-mail: francesco.serinaldi@uniroma1.it

F. Serinaldi
H2CU - Honors Center of Italian Universities, ''Sapienza''
Università di Roma, Via Eudossiana 18, 00184 Rome, Italy

$$
\begin{cases}
Var[Y|X=0] \\
\quad = \dfrac{p_{01}}{p_{00}+p_{01}} \displaystyle\int_0^{+\infty} y^2 \left[(\kappa_Y+1)v_Y[G(y)]^{v_Y-1} - \kappa_Y \right] g(y)dy \\
\quad\ - E^2[Y|X=0] \\
Var[Y|X=x, X>0] \\
\qquad = \dfrac{\kappa_X}{(\kappa_X+1)v_X[F(x)]^{v_x-1}} \displaystyle\int_0^1 \left(G^{-1}(v) \right)^2 c(u,v)dv \\
\qquad\ - E^2[Y|X=x, X>0]
\end{cases}
\tag{13}
$$

Furthermore, in Eq. (9), $F(X)$ should be $F(x)$.