



# Correction to: Multivariate Gaussian and Student-*t* process regression for multi-output prediction

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Published online: 27 February 2020  
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**Correction to:** Neural Computing and Applications  
<https://doi.org/10.1007/s00521-019-04687-8>

Unfortunately, Theorem 3 was published with incorrect equations in the online publication of the article.

The correct theorem should read as follows:

**Theorem 3** (Marginalization and conditional distribution)  
 Let  $X \sim \mathcal{MN}_{n,d}(M, \Sigma, \Omega)$  and partition  $X, M, \Sigma$  and  $\Omega$  as

$$\begin{aligned} 2. \quad & X_{1c} \sim \mathcal{MN}_{n,d_1}(M_{1c}, \Sigma, \Omega_{11}), \\ & X_{2c}|X_{1c} \sim \mathcal{MN}_{n,d_2}(M_{2c} + (X_{1c} - M_{1c})\Omega_{11}^{-1}\Omega_{12}, \Sigma, \Omega_{22 \cdot 1}), \end{aligned}$$

where  $\Sigma_{22 \cdot 1}$  and  $\Omega_{22 \cdot 1}$  are the Schur complement [30] of  $\Sigma_{11}$  and  $\Omega_{11}$ , respectively,

$$\Sigma_{22 \cdot 1} = \Sigma_{22} - \Sigma_{21}\Sigma_{11}^{-1}\Sigma_{12}, \quad \Omega_{22 \cdot 1} = \Omega_{22} - \Omega_{21}\Omega_{11}^{-1}\Omega_{12}.$$

$$X = \begin{bmatrix} X_{1r} \\ X_{2r} \end{bmatrix} \begin{matrix} n_1 \\ n_2 \end{matrix} = \begin{bmatrix} X_{1c} & X_{2c} \end{bmatrix} \begin{matrix} d_1 \\ d_2 \end{matrix}, \quad M = \begin{bmatrix} M_{1r} \\ M_{2r} \end{bmatrix} \begin{matrix} n_1 \\ n_2 \end{matrix} = \begin{bmatrix} M_{1c} & M_{2c} \end{bmatrix} \begin{matrix} d_1 \\ d_2 \end{matrix}$$

$$\Sigma = \begin{bmatrix} \Sigma_{11} & \Sigma_{12} \\ \Sigma_{21} & \Sigma_{22} \end{bmatrix} \begin{matrix} n_1 \\ n_2 \end{matrix} \quad \text{and} \quad \Omega = \begin{bmatrix} \Omega_{11} & \Omega_{12} \\ \Omega_{21} & \Omega_{22} \end{bmatrix} \begin{matrix} d_1 \\ d_2 \end{matrix},$$

where  $n_1, n_2, d_1, d_2$  is the column or row length of the corresponding vector or matrix. Then,

$$\begin{aligned} 1. \quad & X_{1r} \sim \mathcal{MN}_{n_1,d}(M_{1r}, \Sigma_{11}, \Omega), \\ & X_{2r}|X_{1r} \sim \mathcal{MN}_{n_2,d}(M_{2r} + \Sigma_{21}\Sigma_{11}^{-1}(X_{1r} - M_{1r}), \Sigma_{22 \cdot 1}, \Omega); \end{aligned}$$

The original article has been updated accordingly.

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The original article can be found online at <https://doi.org/10.1007/s00521-019-04687-8>.

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