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CORRECTION NOTE

CORRECTION TO "DISTRIBUTIONS CONNECTED WITH A MULTIVARIATE BETA STATISTIC"

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The author is indebted to Professors C. G. Khatri and M. S. Srivastava who pointed out that Theorem 2 in the above mentioned article (*Ann. Math. Statist.* **41** 1091–1095) is invalid. He would also like to thank Professor Srivastava for the suggestion to assume $I-\Sigma_1^{-1}\Sigma_2 = (2/m)P$ where P is fixed as $m \to \infty$.

The following changes must be made to Theorem 2, page 1093: We make the convention that $O(m^{-2})$ can also mean the order term $O(m_{\min}^{-2})$ where $m_{\min} = \min(m_1, \cdots, m_q)$.

(i) Equation (4.7) must read

$$\rho = 1+(n/2fm)(np-p^2+4\operatorname{tr}P-p)+(p/12f)(\textstyle\sum_r(1/m_r)-(1/m))(2p^2+3p-1) \tag{4.7}$$

(ii) Equation (4.8) must read

$$I-\Sigma_1^{-1}\Sigma_2 = (2/m)P \quad \text{where } P \text{ is fixed as} \quad m \to \infty.$$

(iii) Page 1094: Replace lines 12–19 with the following: From Sugiura and Fujikoshi (*Ann. Math. Statist.* **40** 942–952) we can write

$$\left|\Sigma_1^{-1}\Sigma_2\right|^{\frac{1}{2}m} = \left|I-(2/m)P\right|^{\frac{1}{2}m} = \operatorname{etr}(-P)(1-(\operatorname{tr}P^2)/m+O(m^{-2})) \tag{4.13}$$

and

$$(\tfrac{1}{2}m)_K = (\tfrac{1}{2}m)^k(1+a_1(K)/m+O(m^{-2})) \tag{4.14}$$

where $a_1(K) = \sum_j K_j^2 - \sum_j K_j j$.

Substituting (4.11), (4.13) and (4.14) in (4.10), $\phi(t)$ becomes

$$\phi(t) = (1-(1/m)\operatorname{tr}P^2)(1+(1/m)\operatorname{tr}P^2)(1-2it)^{-\frac{1}{2}f}(1-\omega_{\operatorname{tr}P}((1-2it)^{-1}-1))+O(m^{-2})$$

since (see Sugiura and Fujikoshi (1969))

$$\textstyle\sum_{k=0}^{\infty}\sum_K \omega_k C_K(P)/k! = \omega_{\operatorname{tr}P}\operatorname{etr}P,$$
$$\textstyle\sum_{k=0}^{\infty}\sum_K a_1(K)C_K(P)/k! = (\operatorname{etr}P)\operatorname{tr}P^2,$$
$$\textstyle\sum_{k=0}^{\infty}\sum_K \omega_k a_1(K)C_K(P)/k! = \omega_{2+\operatorname{tr}P}(\operatorname{etr}P)\operatorname{tr}P^2.$$

Choosing ρ such that $\omega_{\operatorname{tr}P} = 0$, ρ becomes as given in (4.7). Hence the characteristic function of $\cdots$ (continue with equation (4.15)).

The following misprints also appear in the article:

(i) Equation (2.1): $\exp(-\operatorname{tr} RE)$ instead of $\exp(-\frac{1}{2}\operatorname{tr} RE)$.

(ii) Equation (2.3): $\Gamma_p(b)$ instead of $\Gamma_p(\alpha)$.

(iii) In the proof of Lemma 3, page 1091: α_r instead of a_r and $\frac{1}{2}m_r$, α instead of a and $\frac{1}{2}m$ and b instead of $\frac{1}{2}n$.

(iv) Equation (3.2): $\Gamma_p(\frac{1}{2}m_r+h_r)$ instead of $\Gamma_p(\frac{1}{2}m_r+h)$.

(v) Equation (4.3): $2\gamma_j$ instead of γ_j.

(vi) Equation (4.4): $(1/2\rho)$ instead of $\frac{1}{2}\rho$.

(vii) Page 1094, line 4: *np* instead of *mp*.

(viii) Equation (4.23): $\frac{1}{2}mp(m-p-1)/n$ instead of $\frac{1}{2}m(m-p-1)$.