Pacific Journal of Mathematics

CORRECTION TO: "ON A STRONGER VERSION OF WALLIS' FORMULA"

UPPULURI V. RAMAMOHANA RAO

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ERRATA

Correction to

A DESCRIPTION OF MULT$_i$($A^1, \cdots, A^n$) BY GENERATORS AND RELATIONS

THOMAS W. HUNGERFORD

Volume 16 (1966), 61–76

The statement in the first sentence that $\otimes$ always means $\otimes_R$ is incorrect. The general rule for reading the paper is this: in any statement involving the tensor product of more than two modules or chain complexes, such as $A^1 \otimes \cdots \otimes A^n$ or $K^1 \otimes \cdots \otimes K^r$, $\otimes$ means $\otimes_R$. In any statement involving the tensor product of two finitely generated free complexes of length i (as in the definition of the generators), $\otimes$ means $\otimes_Z$. If this is kept in mind, the few exceptions will be clear in context.

In lines 4 and 8 on page 62 "bimodule" should read "module". In the definition of the generators, the complexes E^r for r odd [even] are complexes of length i of finitely generated free right [left] R-modules. $u(1)$ [$u(n)$] is a right [left] R-module map and $u(r, r+1)$ is a map of R-bimodules.

Correction to

ON A STRONGER VERSION OF WALLIS' FORMULA

V. R. RAO UPPULURI

Volume 19 (1966), 183–187

The note by Boyd [1] has led the author to go through the computations in finding the Bhattacharya bounds and the following corrections should be made in [2].

The results on page 186 of [2] should be corrected as follows:

$$S_1 = (Y - n)/\sigma \qquad \text{where } Y = \sum_{i=1}^{n} (X_i^2/\sigma^2)$$

$$S_2 = \{(Y - n)^2 - 3(Y - n) - 2n\}/\sigma^2$$

$$\lambda_{11} = 2n/\sigma^2, \quad \lambda_{12} = \lambda_{21} = 2n/\sigma^3$$

$$\lambda_{22} = 2n(4n + 9)/\sigma^4 .$$

$\sigma_T^2 > L_2$ implies:

$$(4)\qquad \left\{\frac{n}{2}\frac{\Gamma^2\left(\frac{n}{2}\right)}{\Gamma^2\left(\frac{n+1}{2}\right)}-1\right\}\sigma^2 > \frac{\sigma^2}{2n}\frac{4n+9}{4n+8}\,,$$

for $n = 1,2,\cdots$.

For $n = 2m$, (4) may be written as:

$$(5)\qquad \frac{\Gamma^2(m+1)}{\Gamma^2\left(m+\frac{1}{2}\right)} > m + \frac{1}{4} + \frac{1}{32m+32}$$

for $m = 1,2,\cdots$.

and for $n = 2m+1$, (4) may be written as:

$$(6)\qquad \frac{\Gamma^2(m+1)}{\Gamma^2\left(m+\frac{1}{2}\right)} < \frac{\left(m+\frac{1}{2}\right)^2}{m+\frac{3}{4}+\frac{1}{32m+48}}$$

for $m = 1,2,\cdots$.

Thus (5) and (6) taken together prove

(7)

$$\left\{m+\frac{1}{4}+\frac{1}{32m+32}\right\}^{1/2} < \frac{\Gamma(m+1)}{\Gamma\left(m+\frac{1}{2}\right)} < \left\{\frac{\left(m+\frac{1}{2}\right)^2}{m+\frac{3}{4}+\frac{1}{32m+48}}\right\}^{1/2},$$

which also agrees with the result of Boyd [1]. Equation (3) of [2] has to be replaced by equation (7) of this note.

References

1. A. V. Boyd, *Note on a paper by Uppuluri,* Pacific J. Math. **22** (1967), 9-10.
2. V. R. Rao Uppuluri, *On a stronger version of Wallis' formula,* Pacific J. Math. **19** (1966), 183-187.

Correction to

MAPPINGS AND SPACES

Takesi Isiwata

Volume 20 (1967), 455-480

($A \Longrightarrow B$: A should read B)

p. 459 line 26 in containing $y_n \Longrightarrow$ containing y_n in

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