

ERRATUM TO "SUBORDINATION PRINCIPLE AND DISTORTION THEOREMS ON HOLOMORPHIC MAPPINGS IN THE SPACE C^n "

BY

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1. Matrix inequalities (1) and (4) on p. 330 of [1] should be replaced by the following determinant inequalities:

$$(1') \quad |J_\phi(t)|^2 = |\det(\partial\phi/\partial t)|^2 \leq 1,$$

$$(4') \quad |J_f(t)|^2 \leq |J_F(t)|^2,$$

respectively. The second paragraph of Theorem 2 [1, p. 330] including inequality (5) may now be deleted. The proof of Lemma 2 can be repaired by substituting the second half of the proof beginning from the line right below inequality (3) by the following:

Thus, $AA^* \leq aM^2I_n$, where $A = (\partial\phi/\partial z)_t$. Since $\phi(t) = t$, it holds that $A^k A^{*k} \leq aM^2I_n$ for every positive integer k . Let $\mu_1, \dots, \mu_n$ be the characteristic roots of A . There exists a unitary matrix U such that $A = U\Gamma U^*$, where

$$\Gamma = \begin{pmatrix} \mu_1 & & & * \\ & \ddots & & \\ 0 & & & \mu_n \end{pmatrix}$$

is an upper triangular matrix. Since

$$\Gamma^k = \begin{pmatrix} \mu_1^k & & & * \\ & \ddots & & \\ 0 & & & \mu_n^k \end{pmatrix},$$

we have $\Gamma^k \Gamma^{*k} \leq aM^2I_n$. Thus, for each k , $|\mu_j|^{2k} \leq aM^2$ which implies $|\mu_j| \leq 1$. So $|J_\phi(t)|^2 \leq 1$.

2. In the statements of Theorem 6, p. 334, and Corollary 3, p. 335, " $f \in \mathcal{S}(t)$ " and " $f \in \mathcal{S}(0)$ " should be replaced by " f is a biholomorphic mapping on D " and " f is a biholomorphic mapping on R_ν ", respectively.

3. Inequalities (11), (14) and (15) should be replaced by

$$(11') \quad |J_f(z)| \leq (d_w/r_0(D))^n [T_D(z, \bar{z})/T_D(0, 0)]^{1/2} = (d_w/r_0(D))^n |J_z(0)|^{-1},$$

$$(14') \quad |J_f(z)| \leq (d_w/r_\nu)^{p_\nu} [\det(I - zz^*)]^{-l_\nu/2},$$

$$(15') \quad |J_f(z)| \leq (d_w/r_{IV})^n [1 + |zz'| - 2\bar{z}z']^{-n/2}.$$

In the proof of Theorem 6, the function $g(z)$ should be defined by

$$g(z) = (f(z) - f(t))/[J_f(t)]^{1/n};$$

proceeding as in [1] we obtain corrected formulas (11'), (14') and (15').

4. (3.14) on line 5, p. 334, should be replaced by (3.1).

REFERENCE

1. K. T. Hahn, *Subordination principle and distortion theorems on holomorphic mappings in the space C^n* , Trans. Amer. Math. Soc. 162 (1971), 327–336.

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