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CORRIGENDUM TO: "FOCAL LOCI OF FAMILIES AND THE GENUS OF CURVES ON SURFACES"

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(Communicated by Ted Chinburg)

ABSTRACT. We correct a mistake in the statement of Theorem 1.3 in [Proc. Amer. Math. Soc. 127 (1999), no. 12, 3451–3459].

One of the main results of the article to be corrected, Theorem 1.3, contains an error, as was pointed out to us by Xi Chen. We thank him for noticing the mistake.

The correct statement is:

Theorem 0.1 (Theorem 1.3)**.** *Let D be an integral curve in $\mathbb{P}^3$ and let s, d be two integers such that $d \geq s + 4$ and*

(i) there exists a surface $Y \subset \mathbb{P}^3$ of degree s containing D,

(ii) the general element of the linear system $|\mathcal{O}_Y(dH - D)|$ is irreducible.

Let S be a general surface of degree d in $\mathbb{P}^3$ containing D and set $Y \cap S = D \cup D'$. Then S contains no reduced irreducible curves $C \neq D, D'$ of geometric genus $g < 1 + \deg C(d - s - 5)/2$. In particular, for $d \geq s + 6$ and $g(D), g(D') \geq 2$, S is algebraically hyperbolic.

As for the proof, it is enough to replace the phrase (page 3456, line 23) "On the other hand if $C_0 \subset Y_0$, then, by (ii), C_0 is the smooth complete intersection of S_0 and Y_0; hence $2g - 2 = (d + s - 4) \deg C_0$" with "On the other hand if $C_0 \subset Y_0$, then, by (ii), C_0 is the residue of D_0 in the complete intersection of S_0 and Y_0."

Consequently the correct version of Remark 3.4 will now be:

Remark 3.4. When D and/or D' are rational or elliptic, we still have the algebraic hyperbolicity of the open surface $S - D \cup D'$, for $d \geq s + 6$. More than that, we know that every nonconstant map $\mathbb{C} \to S$ has image contained in $D \cup D'$.

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