

CORRIGENDA

In the microfiche section of the January 1977 issue the title and author on the first page, Table I-1 should read:

“Taylor Series Coefficients of the Jacobian Functions” by Alois Schett.

The title and author on page 41 should read:

“Multistep Methods Using Higher Derivatives and Damping at Infinity”
by Rolf Jeltsch.

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DANIEL SHANKS, “Gauss’s ternary form reduction and the 2-Sylow subgroup,”
Math. Comp., v. 25, 1971, pp. 837–853.

A relatively rare error can occur in the program GATESR on p. 845. Suppose that the incoming form in the principal genus $F = (a_1, b_3, a_2)$ is not an ambiguous form, and that the program goes through endgame (36c) which occurs if $n_1 = a_1 A_3 = +1$ on p. 845. Then the form (u, v, w) obtained at address 11 is *not* the solution of $f^2 = F$; the correct solution is its inverse: $f = (u, -v, w)$.

This *does not* invalidate the 2-Sylow subgroup computed by GATESR even if these conditions are met, since (u, v, w) is in the principal genus iff $(u, -v, w)$ is, and therefore the subgroup remains unchanged. Nonetheless, we should correct this error so that f is obtained correctly in all cases. The simplest correction is this: change the formula

$$n_1 = m_1 + x \quad \text{to} \quad n_1 = -m_1 - x$$

just before

$$5. \quad z = x + y$$

on p. 845.

The error occurs only in the endgame (36c) on p. 843 where the determinant $|\mu| = 1$ instead of -1 as it is in all other cases (36a, b, d, e). To be consistent with the change above, change the signs of the elements in the second column of μ in (36c). Further, in the text, immediately after equation (24), add the phrase

having determinant $|M| = -1$,

It would be more elegant to leave (36c) alone, and change the other cases to have $|\mu| = 1$ also. Then one would have Y instead of $-Y$ in (25). But that would require changes in more formulas.

The validity of Gauss's solution of $f^2 = F$ was not shown in this paper; the reader is merely referred to Gauss's book. In [1] there will be given two simple proofs of the validity of this algorithm.

D. S.

1. DANIEL SHANKS, "A matrix underlying the composition of quadratic forms and its implications for cubic extensions." (To appear.)

The microfiche section of Volume 32, No. 142, April 1978 had a table missing. This table was to have been the first of those connected with the paper, "Table of the cyclotomic class numbers $h^*(p)$ and their factors for $200 < p < 521$," by D. H. Lehmer and J. M. Masley. The missing table is to be found in the microfiche section of the present issue.

EDITOR