

Theoretical Computer Science 3 (1977) 121.

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CORRIGENDUM

To: F.P. Preparata (*University of Illinois, Urbana, IL 61801*),
A Fast Stable Sorting Algorithm with Absolutely Minimum Storage,
Theoretical Computer Science 1 (1975) 185–190.

It has been pointed out by Mr. Rippon of the University of Warwick, England, that Algorithm ISM, p. 189, contains some inaccuracies. In fact, in Step ISM6, the indices $(s + 1 + i)$, and $(u + 1 + j)$ may exceed their ranges. This error can be amended as follows:

In Step ISM4 replace ... set $u \leftarrow k$... with:

... set $u \leftarrow k$, $i \leftarrow 0$, $j \leftarrow 0$

Replace Step ISM6 with the following:

ISM6. While $i + j < 2^r$, if $[(i + s < u) \wedge (j + u < \min(v, s + 2^{r-1}))]$

then: If $V[s + 1 + i] \leq V[u + 1 + j]$, then set $i \leftarrow i + 1$, else set $j \leftarrow j + 1$;

else: If $i + s = u$ then set $j \leftarrow j + 1$, else set $i \leftarrow i + 1$.

With this correction, it is guaranteed that the integers $(s + 1 + i)$ and $(u + 1 + j)$ are always within their ranges prior to their use as indices of the array V .