Erratum for "Atomic snapshots in $O(\log^3 n)$ steps using randomized helping"

October 26, 2016

The proceedings version of the paper "Atomic snapshots in $O(\log^3 n)$ steps using randomized helping," which appeared in DISC 2013, contains an error in the analysis of the cost of Algorithm 4. The error is that the bounded-increments assumption does not necessarily hold for writes to $r.\mathsf{right.tail}$ in Line 11. As a result, the claimed cost of the algorithm is $O(\log^2 n)$ when it should in fact be $O(\log n \log v)$, and the cost of the full snapshot implementation is in fact $O(\log^2 n \log v)$.

This error is also present in draft journal versions of the paper distributed before the date of this erratum. A new version of the paper that fixes the error using a revised max array algorithm is in preparation.