

Erratum for: Atomic snapshots in $O(\log^3 n)$ steps using randomized helping, DISC 2013

December 3, 2020

The proceedings version of the paper [1] 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.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 $O(\log^2 n \log v)$.

We refer the readers to the paper by [2] for an implementation that has a sublinear *amortized* complexity.

References

- [1] James Aspnes and Keren Censor-Hillel. Atomic snapshots in $o(\log^3 n)$ steps using randomized helping. In *Distributed Computing - 27th International Symposium, DISC 2013, Jerusalem, Israel, October 14-18, 2013. Proceedings*, pages 254–268, 2013.
- [2] Mirza Ahad Baig, Danny Hendler, Alessia Milani, and Corentin Travers. Long-lived snapshots with polylogarithmic amortized step complexity. In *PODC '20: ACM Symposium on Principles of Distributed Computing, Virtual Event, Italy, August 3-7, 2020*, pages 31–40, 2020.