



ERRATUM

**Erratum to: A monotonicity result for discrete fractional
difference operators**

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The authors would like to correct the errors in the publication of the original article, and one of the authors also wants to update his present affiliation. The present affiliation and corrected details are given below for your reading:

Unfortunately, Corollary 2.3 in the original paper was stated incorrectly; it should be noted that all other results in the original paper are correct as stated. The correct statement is as follows. Note that the only difference is the addition of the hypothesis $\Delta y(0) \geq 0$. The exclusion of this hypothesis is the error Corollary 2.3 in the original paper.

Corollary 2.3. *Let $y : \mathbb{N}_0 \rightarrow \mathbb{R}$ be a nonnegative function. Fix $\nu \in (1, 2)$ and suppose that $\Delta_0^\nu y(t) \geq 0$ for each $t \in \mathbb{N}_{2-\nu}$. If, in addition, it holds that $\Delta y(0) \geq 0$, then y is increasing on \mathbb{N}_0 .*

Due to this change, we should also point out that some of the results in Goodrich [1] must be slightly changed as well, namely if we wish to argue that $\Delta^{N-1}y(t) \geq 0$ for all $t \in \mathbb{N}_0$, then we must require $\Delta^{N-1}y(0) \geq 0$, and this was omitted in certain of the results—see, for example, [1, Theorem 2.6, Example 2.9, Corollaries 2.8, 2.10, and 2.11].

Reference

- [1] C. S. GOODRICH, A convexity result for fractional differences, Appl. Math. Lett. **35** (2014), 58–62.

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