Erratum to
Extending Persistence Using Poincaré and Lefschetz Duality

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communicated by Konstantin Mischaikow

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Symmetry. As before, K is a triangulation of a d-manifold and f is defined by a real-valued function on the vertex set. We claim that duality implies that persistence is symmetric in the sense that f and $-f$ give the same diagrams up to reflections and dimensions. However, this time we use the superscript R to indicate reflection across the minor diagonal, mapping a point (x, y) to $(-y, -x)$, and the superscript 0 to indicate reflection through the origin, mapping (x, y) to $(-x, -y)$.

SYMMETRY THEOREM. For a real-valued function f on a d-manifold, we have

$$\begin{aligned} \mathrm{Ord}_r(f) &= \mathrm{Ord}^R_{d-r-1}(-f), \\ \mathrm{Ext}_r(f) &= \mathrm{Ext}^0_{d-r}(-f), \\ \mathrm{Rel}_r(f) &= \mathrm{Rel}^R_{d-r+1}(-f), \end{aligned}$$

for all dimensions r.