

Errata on the paper Vietoris-Rips Complexes also Provide Topologically Correct Reconstructions of Sampled Shapes

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March 6, 2014

The errors have been fixed in the version that you can currently download from this site.

Page 24: In Figure 9(a), the ratio $\lambda_n^{\text{rips}}(\mu)$ is now plotted for $n \in \{2, 3, 4, 5, +\infty\}$ instead of $n \in \{3, 4, 5, 6, +\infty\}$.

Page 26: $\lambda_n^{\text{rips}}(\mu)$ is the greatest root of a polynomial of degree 2 in $\frac{\varepsilon}{R}$ and should be:

$$\lambda_n^{\text{rips}}(\mu) = \frac{-\vartheta_n - \vartheta_n \mu + \vartheta_n \mu^2 + \sqrt{-4\mu^2 + 8\mu + 4\vartheta_n \mu^2 - 8\vartheta_n \mu - \vartheta_n^2 \mu^2 + 2\vartheta_n^2 \mu + \vartheta_n^2}}{\mu(2 - \mu)(\vartheta_n + 2)}$$

instead of

$$\lambda_n^{\text{rips}}(\mu) = \frac{(2 - \vartheta_n)(2 + 2\sqrt{2} - \vartheta_n)\sqrt{2 - \mu - \mu^2} - (4 + 2\sqrt{2} - \sqrt{2}\vartheta_n)(1 + \mu - \mu^2)}{\mu(2 - \mu)(12 + 8\sqrt{2} - 4\vartheta_n - 4\vartheta_n\sqrt{2} + (\vartheta_n)^2)}.$$

which is the smallest root and is negative! Thanks to Xavier Goaoc for pointing out this error.

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