

Errata

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This document shows the list of **corrected** typing errors in the PhD Thesis “Nonnegative Matrix and Tensor Factorizations: Models, Algorithms and Applications” (available <https://angms.science/doc/PhDThesis.pdf>).

- Equation (5.12): “hard-thresholding” is corrected to “soft-thresholding”.
- Definition 5.2.1, “ $\mathbf{R} \in \mathbb{R}_+^{m \times m_1}$ ” is corrected to “ $\mathbf{R} \in \mathbb{R}_+^{m_1 \times m}$ ”. The same is true in Theorem 5.2.1.
- Theorem 5.2.1, the small bug if p is odd is fixed.
- Theorem 5.3.1, in the proof: “ $(\mathbf{W}^\#, \mathbf{H}^\#)$ ” is corrected to “ $(\mathbf{W}^*, \mathbf{H}^*)$ ”.
- Theorem 5.3.3: we assume “ $\mathbf{u} \neq \mathbf{v}$ ” is corrected to “ $\mathbf{u} \neq \alpha \mathbf{v}, \alpha > 0$ ”. And before Equation (5.18), “ $\mathbf{u} \neq \mathbf{v}$ ” should be “ $\mathbf{u} \neq \alpha \mathbf{v}$ ”. In the same theorem, in Equation (5.17), the “ $\not\leq$ ” is corrected to “ $\not\geq$ ”. And after the proof, the end of the first sentence: “ \mathbf{H} is nonnegative” is corrected to “ $\mathbf{H} \geq 0$ is full rank”.
- Fig. 7.13: for the subfigure in the second row, second column, the title $g = \log \det(W^\top W)$ should be $g = \log \det(W^\top W + \delta I)$

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