

Corrigenda of “Complex-valued Neurons Can Learn More but Slower than Real-valued Neurons via Gradient Descent”

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All the following discovered corrigenda are fixed in the PDF provided on my homepage.

1. [2024-09-05] In Lemma 7, the last term should be $\sin(\theta_{\mathbf{w}} + \theta_{\mathbf{v}} - 2b)$ rather than $\sin(\theta_{\mathbf{w}} - \theta_{\mathbf{v}} - 2b)$. This is a typo and does not affect Lemma 8 (which directly uses Lemma 7) and the rest of the paper.
2. [2025-04-24] In Section 4.1 and related proofs, the covariance of w_0 should be \mathbf{I}_2 rather than I_2 . In the first paragraph of Section 4.2, ϕ , the phase parameter of the target neuron, is unified as ψ_v . On the line above Eq. (21), pi should be π . These are notation typos and do not affect the soundness of the theories.