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Corrigendum: PGTransNet: a physics-guided transformer network for 3D ocean temperature and salinity predicting in tropical Pacific

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KEYWORDS

physics-guided machine learning, spatio-temporal data analysis, ocean temperature prediction, ocean salinity prediction, ViT

A Corrigendum on

[PGTransNet: a physics-guided transformer network for 3D ocean temperature and salinity predicting in tropical Pacific](#)

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In the published article, there was an error. A paragraph and [Equation 5](#) are repeated and need to be deleted. Consequently, Equations 6, 7, and 8 should be renumbered to Equations 5, 6 and 7, respectively.

A correction has been made to [Methodology](#), [2.5 Physics-guided information integrating, paragraphs 4 and 5](#). The following text is repeated and should be deleted:

“It’s noteworthy that the density of seawater is determined by the reciprocal of the pressure derivative of the Gibbs function (g) at constant absolute salinity (SA) and in situ temperature T. Specifically,

$$\rho = \rho(S_A, T, P) = (g_P)^{-1} = (\partial g / \partial P|_{S_A, T})^{-1} \quad (5)$$

where, $0 \leq S_A \leq 120\text{g/kg}$, $-12^\circ\text{C} \leq T \leq 80^\circ\text{C}$, $1\text{Pa} \leq P \leq 100\text{MPa}$. Compared to the previous standard EOS-80 (Equation of State of Seawater 1980), the TEOS-10 offers broader applicability”.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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