

To:

Dr. Prof. Thomas Wahl,

Editor,

Natural Hazards and Earth System Sciences

Dear editor,

During the proofreading stage of publishing the manuscript “Non-stationary analysis of water level extremes in Latvian waters, Baltic Sea, during 1961–2018” by N. Kudryavtseva, T. Soomere, and R. Männikus, we found a typo in equation 3. The shape parameter ξ of the Generalized Extreme Value distribution in a non-stationary case G_{nonst} is supposed to depend on time t . I will kindly request to change equation 3 in the manuscript:

$$G_{nonst}(x; \mu, \sigma, t) = \exp \left\{ - \left[1 + \xi \left(\frac{x - \mu}{\sigma} \right) \right]^{-\frac{1}{\xi(t)}} \right\}$$

to:

$$G_{nonst}(x; \mu, \sigma, t) = \exp \left\{ - \left[1 + \Xi(t) \left(\frac{x - \mu}{\sigma} \right) \right]^{-\frac{1}{\Xi(t)}} \right\}$$

As of 29.03.2021 you denied this request saying that the shape parameter $\Xi(t)$ does not appear on the left side of the equation. However, this is correct since the $\Xi(t) = \xi_0 + \xi_1 t$ depends on time t and t is written in the equation as it supposed to be. The ξ_0 and ξ_1 are constant in this approach and the constant values should not be in the list of variables on the left side of the equation.

Sincerely yours,

Nadia Kudryavsteva