Numerische Mathematik

CORRECTION



Correction to: Fast random field generation with H-matrices

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On page 3 in line -4, the correct statement is

... $\mu \in (0, \infty], p \in 2\mathbb{N}$ are parameters.

The corrected version states the parameter range as $p \in 2\mathbb{N}$ instead of $p \in \mathbb{N}$. The effect is to disallow non-smooth norms such as the ℓ_1 -norm for the distance measure. This, however, does not impact the usual definition of the Matérn class of covariance functions using the ℓ_2 -norm for all values of $\mu \in (0, \infty]$ (particularly the exponential case for $\mu = 1/2$ and the Gaussian case for $\mu = \infty$). Moreover, all the numerical examples and particularly the non-stationary covariance functions on page 642 are still covered by the theory.

This minor change closes the small gap in the proof of Lemma 1 by ensuring the existence of all the derivatives which are shown to be bounded in the sense of asymptotic smoothness (1).

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