To Reviewer # 9:

We appreciate the helpful feedback from the reviewer. We have extended the current work and revised the manuscript as suggested by the reviewer.

To Comment # 1:

Concern: ***The treatment is very general. Therefore, to prove the effectiveness of the method a more realistic application is needed or at least envisioned and discussed.***

Response: Yes, we understand the importance of model effectiveness and generalizability in the development of surrogate models for uncertainty quantification and propagation. Therefore, we have further carried out studies including the Poisson's equation, Darcy's law, and nonlinear geometry analysis. Enclosed please find the results file (file name: supplementary.pdf).

Secondly, we fully agree with the reviewer and have, accordingly, added some sentences in the conclusion section discussing application examples of practical interest. Moreover, we would like to provide the computer codes at `https://xihaier.github.io` upon publication of the manuscript, helping researchers quickly reproduce the results and adapt the proposed method to their own problems.

To Comment # 2:

Concern: ***The paper needs a review in grammar and style.***

Response: Yes, thank you for pointing this out. As it is suggested, we have done a systematic check of typos, grammatical errors, and spelling mistakes. Meanwhile, we have revised the manuscript regarding its presentation style.