Dear Editors:

We wish to submit an article entitled “On the Universally Optimal Activation Function for a Class of Residual Neural Networks” to the special issue “Information Theory for Interpretable Machine Learning” of the Journal Entropy. The authors of this work are Shao-Lun Huang and myself.

Our submitted article presents a theoretical framework to rigorously analyze the performance gain of using non-linear activation functions for a class of residual neural networks. This can help for the domain of interpretable machine learning. Our analysis relies on the techniques similar to the code error rate in information theory, therefore we think this article fits with the scope of the special issue mentioned above.

We confirm that neither the manuscript nor any parts of its content are currently under consideration or published in another journal, and all authors have approved the manuscript and agree with its submission to Entropy.

Sincerely,

Feng Zhao

Department of Electronic Engineering, Graduate School at Shenzhen

Tsinghua University,ShenZhen, GuangDong, PR China