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Fourier Neural Operators for the Approximation of a Class of Nonlinear Periodic Differential Systems

Communication Info

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Abstract

The aim of this work is to focus on the study of a class of periodic systems derived from biological phenomena modeling. Such models are generally cooperative. After developing a criterion for the existence of periodic solutions, the algorithms for their numerical simulations are designed. we opted for Deep Learning (FNO). The numerical results obtained show the robustness and efficiency of the proposed method.

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