



The Hong Kong University of Science and Technology

Scientific Computation Concentration



Exploring the Function Space of Deep-Learning Machines

By

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Abstract

The function space of deep-learning machines is investigated by studying growth in the entropy of functions of a given error with respect to a reference function, realized by a deep-learning machine. Using physics-inspired methods we study both sparsely and densely-connected architectures to discover a layer-wise convergence of candidate functions, marked by a corresponding reduction in entropy when approaching the reference function, gain insight into the importance of having a large number of layers, and observe phase transitions as the error increases. (Reference: <https://arxiv.org/abs/1708.01422>)

Date: Friday, 3 November 2017

Time: 3:00p.m.- 4:00p.m.

***Venue: Room 3494, Academic Building
(near lifts 25 & 26), HKUST***

All are welcome!