学术讲座

Title: **Neural networks and their applications in physical sciences**

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Time: **2:00pm, Tuesday, September 5, 2017**

Venue: **Conference Hall 322, Science Building, Tsinghua University**

Abstract

Neural networks have gained much attentions in recent years due to their applications in various daily aspects including facial/voice recognition and data mining. Despite their remarkable ability, neural networks are severely underutilized and have not realized its full potential in physical sciences. In this talk, I will briefly explain the basic concepts as well as some exciting frontier ideas in neural networks. I will discuss the opportunities of applying this simple yet interesting idea to physical sciences using my studies of the Milky Way as an example. In particular, I will describe how a combination of data-driven models and neural networks can be an effective tool to harness information from low-resolution spectra and to relate various fields in physical sciences -- such as the studies of spectroscopy and asteroseismology in astronomy.