## 17 Oxford Street Cambridge, MA 02138



## Tuesday, January 19, 2021, at 10:00 (Boston) 15:00 (UK/Eire) 16:00 (C.Europe) 23:00 (China) Mathematical Picture Language Seminar

Zoom at: <a href="https://harvard.zoom.us/i/779283357?pwd=MitXVm1pYUIJVzZqT3IwV2pCT1ZUQT09">https://harvard.zoom.us/i/779283357?pwd=MitXVm1pYUIJVzZqT3IwV2pCT1ZUQT09</a>
Complexity of neural networks
Kaifeng Bu, Harvard University and Tsinghua University

Abstract: One of the central problems in the study of deep learning theory is to understand complexity of the neural networks. In this talk, we will introduce the topological entropy from dynamic system as a measure of complexity of neural networks. We will also discuss the depth-width trade-offs of neural networks via topological entropy.

