



復旦大學  
FUDAN UNIVERSITY

Applied Math  
Ph.D. Seminar

## Universal Approximation Properties of Deep Neural Networks: A control theory perspective

**Speaker:** Ting Lin (Peking University)

**Time:** 2023-09-07, 16:10 to 17:00

**Location:** Rm 1801, Guanghua East Tower

**Advisor:** Jun Hu (Peking University)

**Abstract:** In this talk, I will give some results about the universal approximation property of deep neural networks. We focus on the continuous-time ResNet, and using tools from control theory. This enables us to discuss the expressive power of neural networks by its depth. I will also discuss the generalization on neural networks with symmetry.