



HARVARD UNIVERSITY  
17 Oxford Street  
Cambridge, MA 02138

# Mathematical Picture Language Seminar



**Tuesday, April 15**

**4:30p.m. Boston time**

**Jefferson 256 and Zoom**

**Zhengwei Liu**

Tsinghua University

## Alterfold Theory and Quantum Error Correction

**Abstract:** We will present new insights in alterfold theory and quon language to study quantum error corrections. We provide a learning-based framework for constructing Variational Graphical Quantum Error Correcting (VGQEC) noise-tailored codes. We illustrate this framework by constructing explicit codes, including optimal ones. It is based on joint work with Y. Shao, Y. Li et al, arXiv:2410.02608.



Zoom QR Code & Link:

<https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQT09>

Passcode: 657361

<https://mathpicture.fas.harvard.edu/seminar>