



HARVARD UNIVERSITY
17 Oxford Street
Cambridge, MA 02138

Mathematical Picture Language Seminar

Tuesday, October 12, 2021, at **9:30** a.m. EST

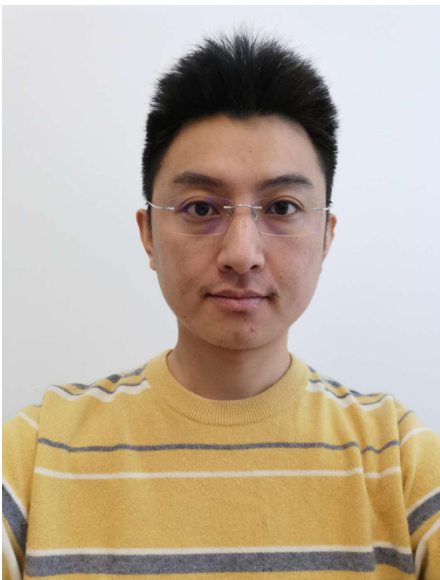
Zoom QR Code & Link:

<https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUJlVzZqT3lwV2pCT1ZUQTog>



Uncertainty Principles on Quantum Symmetries

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Abstract: Uncertainty principle is a main theme in classical Fourier analysis and it is a fundamental phenomenon in quantum physics. In this talk, we discuss various uncertainty principles on quantum symmetries in quantum Fourier analysis. We show that uncertainty principles are robust when classical group symmetries are replaced by quantum symmetries, captured by von Neumann algebras. In recent work joint with Linzhe Huang and Jinsong Wu, we study a quantum analogue of the Widgerson-Widgerson uncertainty principle and give a complete answer to their conjecture.

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