## Oklahoma State University

## Colloquium

Title

Classifying the unitary dual of real reductive groups

Speaker: Kayue Daniel Wong, The Chinese University of Hong Kong

Date: Feb 3, 2023 Time: 9:00 AM Room: Virtual

**Abstract:** Let G be a real reductive Lie group (such as  $GL(n, \mathbb{R})$ ,  $SO(n, \mathbb{R})$  or  $Sp(2n, \mathbb{R})$ ). The problem of classifying all irreducible, unitary representations of G has deep connections with quantum mechanics, yet it remains unsolved for nearly a century. In this talk, we will recall some known results in the classification problem, and will explore how the 'atlas' software can be used to verify and give insights on proving various conjectures related to the problem.

