

# Cartan Subalgebras in $k$ – Graph $C^*$ – Algebras

Dilian Yang

University of Windsor

**Abstract:**  $k$  – graphs (or higher rank graphs) are a higher dimensional generalization of directed graphs; directed graphs are naturally identified with 1 – graphs. They provide many important and interesting examples of (not necessarily self-adjoint) operator algebras. One key feature of those operator algebras is that there is nice interplay between their algebraic/analytic properties and visual properties of their underlying graphs.

In this talk, I will first review  $k$  – graph  $C^*$  – algebras, and then present some results on their Cartan subalgebras.