

**Speaker: Graham KELLS (Maynooth University, Ireland)**

**Title: Impossible measurement and light cone lattices**

**Abstract:** In this talk I'm going to speak about impossible measurements, the notion of which comes from Rafael Sorkin in 1993, who realised that it is possible to leverage relativistic causality to restrict the types of possible measurement you can do via the projection postulate. I'll mostly speak about the work in Phys. Rev. D 104, 025012 (2021), with Leron Borsten and Ian Jubb, but I'll also borrow a little extra context from some more recent papers.

If I have time I'll also discuss work-in-progress regarding the Destri -De Vega light cone lattice model for relativistic fermions. This can be used to test some of the ideas regarding impossible measurements, but can also be used to study weak measurement and entanglement transitions.