



## Applied and Computational Mathematics Seminar

**Title:** Bounds on negative energy in quantum field theory

**Speaker:** Dr Calvin Smith

**Date:** Thu 14th June 2007 at 2:15PM

**Location:** Mathematical Sciences Seminar Room

**Abstract:** It is known that, unlike its classical counterpart, no quantum field can satisfy pointwise positive energy conditions. This startling feature of quantum field theory is often used to support so-called 'designer spacetimes' like the traversable wormhole or warp-drive. In this talk I will review some aspects of negative energy physics and discuss certain bounds on the smeared energy density known as Quantum Energy Inequalities.

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