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## Effective Dispersion Relations in $Z=2$ Lifshitz QED

*Friday 24 January 2014 11:00 (30 minutes)*

In studies of Lorentz-symmetry violating QFTs, phenomenological viability is often claimed from purely classical considerations with surprisingly little attention given to the effects of quantum corrections, presumably due to their supposed “smallness” and the difficulty of their calculation. In this talk I shall give a concrete example of a model in which this assumption is shown to be false- a model of QED with Lifshitz scaling (i.e. a scaling anisotropy between space and time). I shall discuss the relevant 1-loop corrections of this theory and some of the more interesting technicalities that arose in its renormalisation.

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