

# Quantum gravity, the strong CP problem and the companion axion solution

*Thursday 8 December 2022 14:00 (20 minutes)*

I argue that quantum gravity effects due to the coloured gravitational instantons compromise the standard axion solution to the strong CP problem. I propose a new solution within a theory that requires two axion fields and is dubbed the companion axion model. Some phenomenological and cosmological implications of this model are discussed.

**Author:** KOBAKHIDZE, Archil

**Presenter:** KOBAKHIDZE, Archil

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