

# Derivation of 11 dimensional spacetime without assuming supersymmetry

*Wednesday, 29 November 2023 17:15 (15 minutes)*

In this talk, I demonstrate that scale invariance and electromagnetic duality are strong enough to restrict the spacetime dimension. 10 and 11 dimensional spacetimes are obtained as solutions of these constraints. In this derivation, supersymmetry and general relativity are not assumed.

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