

Fakeons, quantum gravity and the classical limit

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A new quantization prescription is able to endow quantum field theory with a new type of “particle”, the fakeon (fake particle), which mediates interactions, but cannot be observed. A massive fakeon of spin 2 (together with a scalar field) allows us to build a theory of quantum gravity that is both renormalizable and unitary, and to some extent unique. After presenting the general properties of this theory, I discuss its classical limit, which carries important remnants of the fakeon quantization prescription.

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