

# The Lorenz-Franz method for the Yang-Mills model: A demonstration of the equivalence principle

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## Abstract

This paper demonstrates that the Yang-Mills (YM) theory is equivalent to the Lorenz-Franz (RF) theory in the Yang-Mills (YM) case, and that the YM theory is a spacetime with no boundary. The proof of this proposition is based on its equivalence principle. The proof of the equivalence principle is made by using the YM theory as a model of the Yang-Mills (YM) theory. The proof is derived directly from the YM theory.