

**HIGGS FIELD AND THE MASSLESS MINIMALLY COUPLED
SCALAR FIELD
IN DE SITTER UNIVERSE**

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ABSTRACT. The massless minimally coupled scalar field in de Sitter ambient space formalism might play the role of the Higgs scalar field of the electroweak standard model. With the introduction of a new transformation for this field, the interaction Lagrangian between the scalar field and the spinor field can be made similar to a gauge theory. In the null curvature limit, the Yukawa potential can be constructed from that Lagrangian. Finally the one-loop correction of the scalar-spinor interaction is presented, which is free of any infra-red divergence.

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