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Global fits in the coloured scalar model

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In this work we study the phenomenological constraints to the parameter space of scalars carring color quantum numbers. Specifically we constrain the Manohar-Wise model based on the addition of a SU(2) doblet and SU(3) octet to the minimal Higgs model. The fits are performed using the open source HEPfit package. We include both theoretical constraints, such us unitarity and pertubativity, and experimental constraints, like the ones coming from flavour and electroweak observables. For the fist time we combine all these results and we are able to contrain the parameters of the potential, the Yukawa couplings and the masses of the scalars.

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