

# Extension of the Standard Model with Chern-Simons type interaction

*Monday 2 September 2024 11:40 (20 minutes)*

This extension has a new vector massive boson (Chern-Simons boson) that couples to electroweak gauge bosons by the so-called effective Chern-Simons interaction. There is no direct interaction between the Chern-Simons bosons and SM fermions. We consider the effective loop interaction of a new vector boson with SM fermions and consider the possibility of the manifestation of the GeV-scale Chern-Simons bosons in collider experiments. These results are presented in detail in arXiv:2110.14500 and arXiv:2405.00164.

The work of V.G., I.H., and O.Kh. was supported by the National Research Foundation of Ukraine under project No. 2023.03/0149.

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