

The Higgs boson masses and Higgs decays in the B-LSSM with explicit CP violation

Friday, 2 June 2023 18:45 (5 minutes)

We calculate one-loop radiation corrections to the mass matrix of the neutral Higgs boson in the B-L Supersymmetric Standard Model (B-LSSM) with explicit CP violation. Within the effective potential methods, the masses of the neutral Higgs-boson are calculated at the one-loop level by taking into account the contributions of the following loops of ordinary particles and superparticles: the top quarks, the bottom quarks, the scalar top quarks and the scalar bottom quarks. At the same time, we also calculate the lightest Higgs decays $h^0 \rightarrow \gamma\gamma, h^0 \rightarrow f\bar{f}, h^0 \rightarrow VV^* (V=W, Z), h^0 \rightarrow gg$ in the B-L supersymmetric standard model (B-LSSM) with explicit CP violation.

Primary author: ZHANG, Wen-Hui (河北大学)

Co-authors: ZHANG, Hai-Bin; YANG, Jin-Lei; FENG, Tai-Fu

Presenter: ZHANG, Wen-Hui (河北大学)

Session Classification: Poster session and buffer dinner