



Contribution ID: 322

Type: Oral presentation using Zoom

Imprint of quark flavor violating SUSY in $h(125)$ decays at ILC

Wednesday, 27 October 2021 11:20 (20 minutes)

We study the Higgs boson decays $h \rightarrow c\bar{c}, b\bar{b}, b\bar{s}, \gamma\gamma$ and gg in the Minimal Supersymmetric Standard Model (MSSM) with general quark flavor violation (QFV), identifying the h with the Higgs boson with a mass of 125 GeV. We compute the widths of the h decays to $c\bar{c}, b\bar{b}, b\bar{s}$ at full one-loop level in the MSSM with QFV. For the h decays to $\gamma\gamma$ and gg we compute the widths at NLO QCD level. We perform a systematic MSSM parameter scan respecting all the relevant constraints, i.e. theoretical constraints from vacuum stability conditions and experimental constraints, such as those from K- and B-meson data and electroweak precision data, as well as recent limits on Supersymmetric (SUSY) particle masses and the 125 GeV Higgs boson data from LHC experiments.

1st preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

2nd preferred time slot for your oral presentation

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 PDT)

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Session Classification: F&H-1: Higgs properties & BSM particle production

Track Classification: Parallel sessions: Topical Groups: Session F: Higgs properties