



Contribution ID: 1268

Type: Parallel Talk

## Probing light Higgs boson with 96 GeV in di-photon channel

*Friday, 8 July 2022 10:15 (15 minutes)*

Motivated by results recently reported by the CMS Collaboration about an excess in the di-photon spectrum at about 96 GeV, especially when combined with another long-standing anomaly at the same value in the  $b\bar{b}$  invariant mass spectrum in four-jet events collected at LEP, we show that a possible explanation to both phenomena can be found at  $1\sigma$  level in a generic 2-Higgs Doublet Model (2HDM) of Type-III in presence of a specific Yukawa texture, wherein Lepton Flavour Violating (LFV) (neutral) currents are induced at tree level. Bounds from Higgs data play a major role in limiting the parameter space of this scenario, yet we find solutions with  $m_H = 125$  GeV and  $m_h = 96$  GeV consistent with current theoretical and experimental bounds.

### In-person participation

Yes

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**Session Classification:** Higgs Physics

**Track Classification:** Higgs Physics