



Contribution ID: 113

Type: Oral presentation using Zoom

## Decoding the Charged Lepton Yukawa from the Higgs measurements

*Thursday, 28 October 2021 13:20 (20 minutes)*

Higgs couplings to charged leptons forms an important measurement to understand not only the Standard Model but also physics beyond Standard Models including, multihiggs models , supersymmetric models etc. In the present work, We focus on the complementarity between the direct and indirect measurements in fixing the charged Lepton Yukawa couplings including flavour violating couplings. We show that the present limits from LHC are already competing with the indirect flavour violating measurements in some cases. We then comment on future possible measurements of these couplings including those from FCC-ee, ILC etc. We then extend our analysis to two Higgs doublet models of type III.

### 1st 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)

### 2nd preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

**Primary authors:** SARKAR, Ratan (IISc Bangalore); KUMBHAKAR, Suman (IISc Bangalore); VEMPATI, Sudhir (IISc Bangalore)

**Presenters:** SARKAR, Ratan (IISc Bangalore); KUMBHAKAR, Suman (IISc Bangalore); VEMPATI, Sudhir (IISc Bangalore)

**Session Classification:** F-2: Higgs properties

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