Contribution ID: **12** Type: **Oral presentation using Zoom**

Probing heavy charged fermions at e^+e^- collider using the Optimal Observable Technique

Wednesday 27 October 2021 16:30 (20 minutes)

In this work, we study the production of color-neutral and singly-charged heavy leptons at the proposed International Linear Collider. We use the optimal observable technique to determine the statistical accuracy to which the coupling of such fermions to the Z gauge boson (vector, axial or chiral) can be measured. We also consider a UV-complete model that contains these particles as well as a dark matter candidate, and consider some observable effects involving both; the correspondence to chargino production in supersymmetric models with heavy sleptons is briefly discussed.

1st preferred time slot for your oral presentation

19:00-21:00 JST (12:00-14:00 CEST, 6:00-8:00 EDT, 3:00-5:00 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)

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Session Classification: H-2: BSM particle production

Track Classification: Parallel sessions: Topical Groups: Session H: BSM particle production