Contribution ID: **30** Type: **ORAL**

Searching for light scalars and ALPs from Z decays

Wednesday, 11 October 2023 14:00 (15 minutes)

Scalars particles lighter than 90 GeV are predicted in various new physics scenarios. They can be produced via rare decays of the Z boson, together with a photon, offering an ideal discovery channel in e+e- colliders. I will present possible search strategies at the Tera-Z run of the FCC-ee, highlighting the complementarity with other colliders (HL-LHC) and the high-energy reach of such searches. For instance, Higgs compositeness scales up to 100 TeV can be tested.

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Session Classification: Parallel - WG1-SRCH

Track Classification: WG1-SRCH - Physics Potential: Feebly interacting particles, direct low mass searches