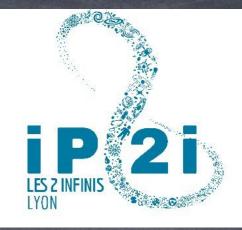
CNIS



Z boson decay into a (pseudo)scalar and a photon at the FCC-ee/CEPC

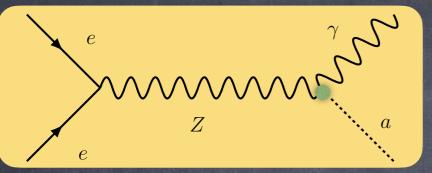
Giacomo Cacciapaglia IP2I Lyon, France

Who are we?

S.Gascon, G.Moreau, G.Cacciapaglia, S.Mukherjee, T.Srivastava, J.Xiao, E.Jourd'hui

What are we interested in?

Inspired by composite Higgs models, study (pseudo)scalars that are produced via rare Z decays (with a photon)



 150 ab^{-1}

30

40

m_a (GeV)

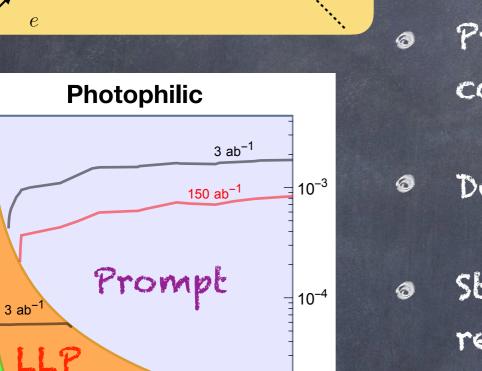
50

60

70

20

10



10⁻⁵

80

0

0

- Inspired by composite models, but applies to all ALP models!
- Production rate and decay length are correlated.

Decays
$$a \to \gamma \gamma \text{ or } a \to b\bar{b}/\tau^+\tau^-$$
.

Study HL-LHC reach in prompt and LLP regions.

Study reach at next e+e- collider.

