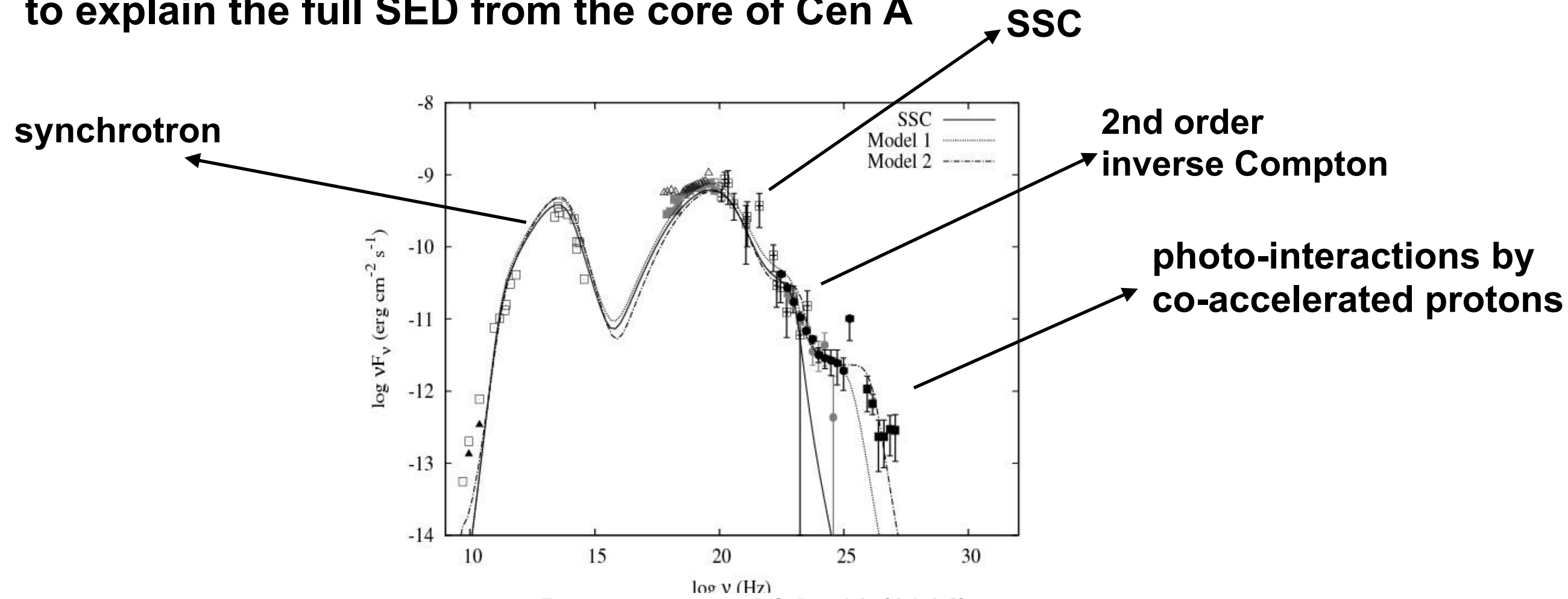


# Excited isomer photons and the VHE emission from Centaurus A

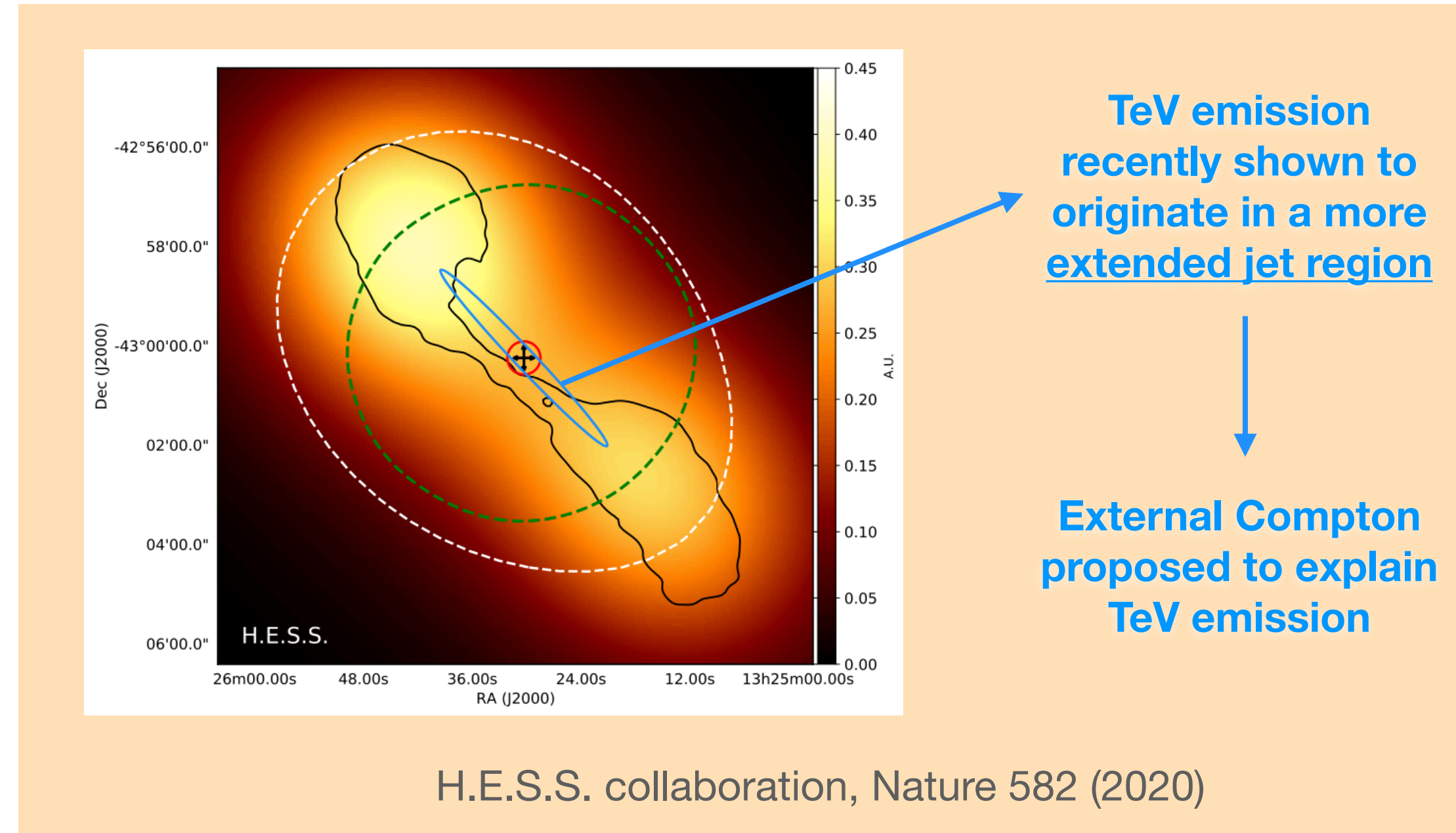
Leonel Morejon

Several hadronic scenarios have been shown to explain the full SED from the core of Cen A



Petropoulou+ A&A 562 (2014)

Other models involving nuclei heavier than protons: Kundu+ JCAP 04 (2014), Banik+ MNRAS 500 (2021)



H.E.S.S. collaboration, Nature 582 (2020)

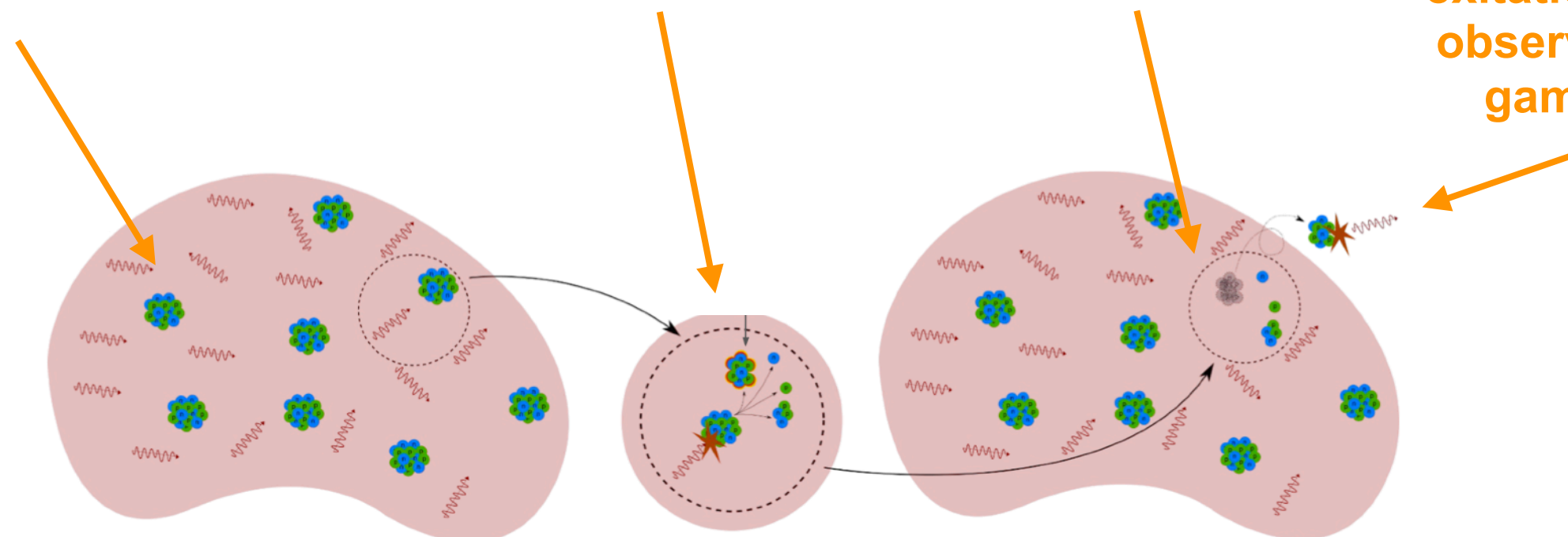
We propose photons from the decay of isomeric states of CR nuclei

CR nuclei accelerated in the core interact and photo-disintegrate...

...producing lighter secondary isotopes, of which a fraction are in isomeric states.

Some will escape the core and decay in an extended region...

emitting de-excitation photons observed as TeV gamma rays



Numerical model result for iron-56 injection

