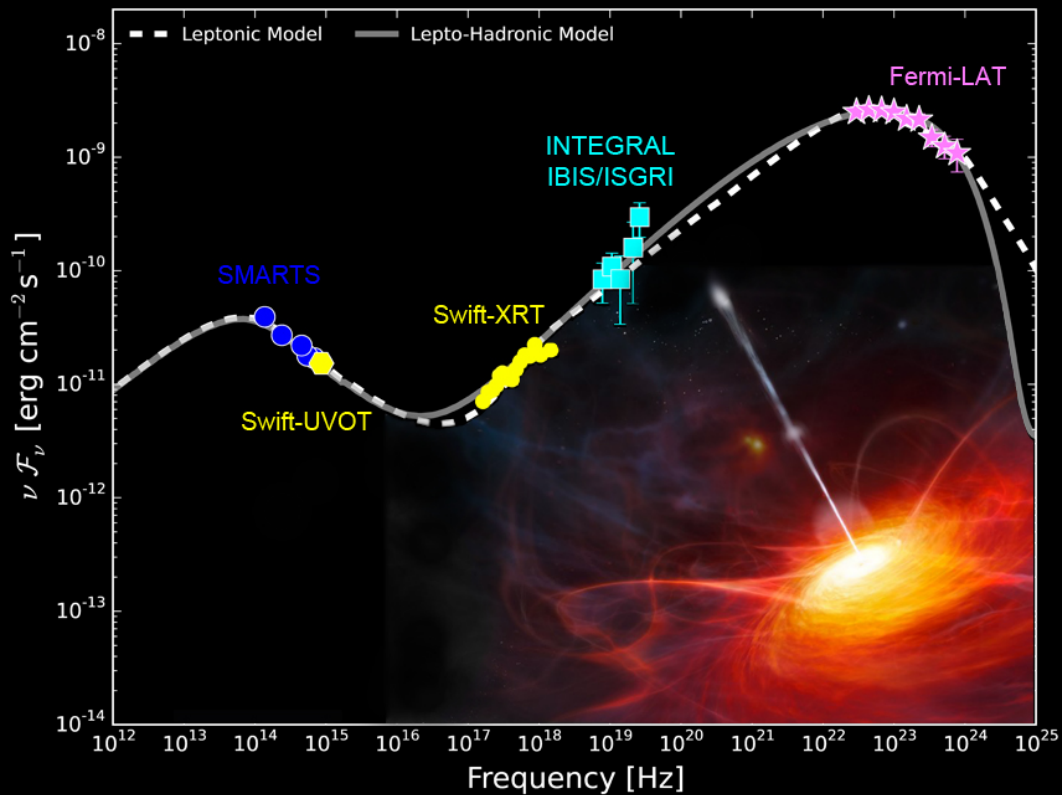


On the Underlying Particles in the Jet of 3C 279

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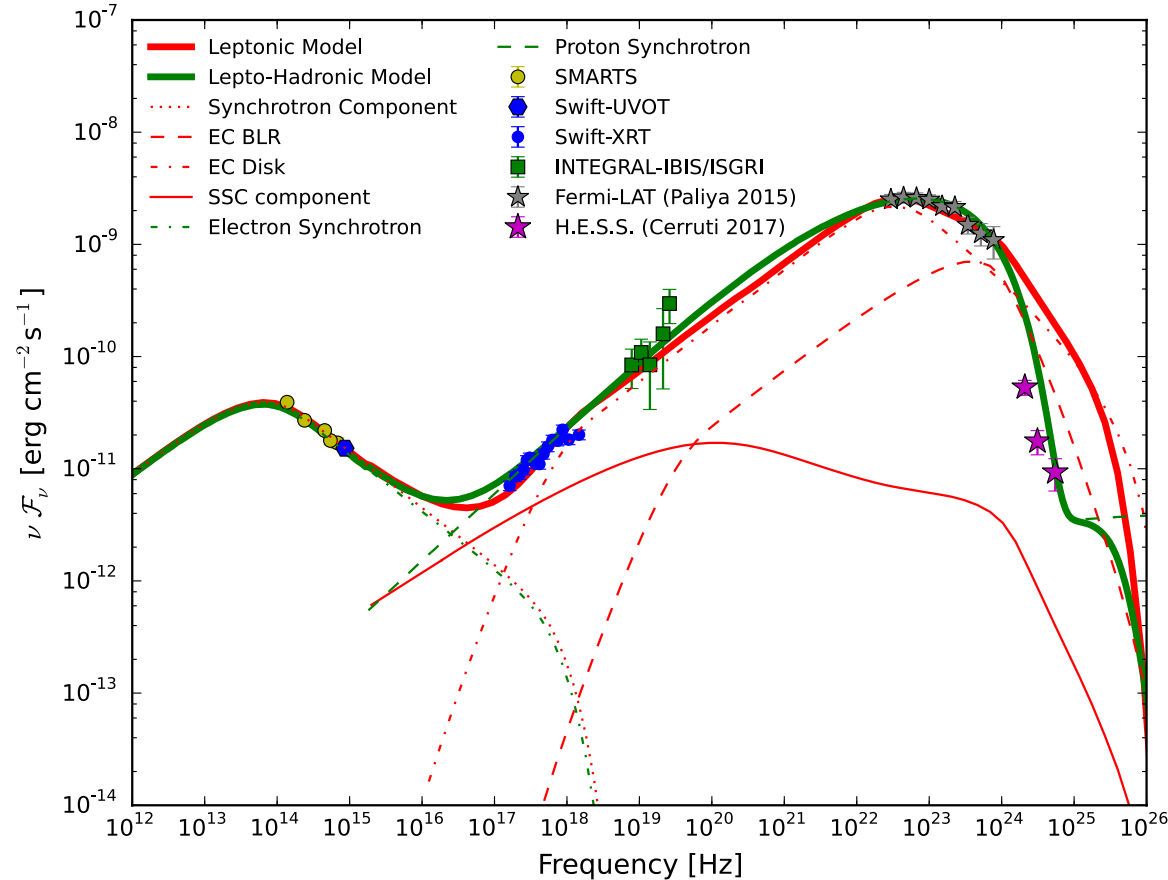


3C 279: Observations of the Outburst in 2015 June

On June 15th 2015, 3C 279 underwent its today's brightest high-energy outburst, which was caught by the ***INTEGRAL*** mission (Bottacini et al. 2015). The flare was simultaneously recorded by the ***Fermi*** gamma-ray mission (Paliya 2015), by ***Swift-XRT*** (Pittori et al. 2015) at X-rays, by ***Swift-UVOT*** at UV frequencies, and by ***SMARTS*** at IR-optical frequencies. The SED of these data is displayed in slide 1 adapted from Bottacini et al. (2016).

Very recently published data by ***H.E.S.S.*** (Cerruti et al. 2017) are added to the plot in the next slide.

SED Analysis



Data are modeled with the leptonic model (red line) and the lepto-hadronic model (green line) as described in Böttcher et al. (2013). Data require the leptonic model to be out of equipartition. The lepto-hadronic model requires a high jet power. Simultaneous data at VHE (magenta stars) provided very recently by *H.E.S.S.* (Cerutti et al. 2017) line up well with our lepto-hadronic model.

References

- Bottacini et al., 2015, ATel, 7648
Bottacini et al., 2016, ApJ, 832, 17
Böttcher et al., 2013, ApJ, 768, 54
Cerruti et al., 2017, AIPC, 1792, 29
Paliya 2015, ApJL, 808, 48
Pittori et al., 2015, ATel, 7639