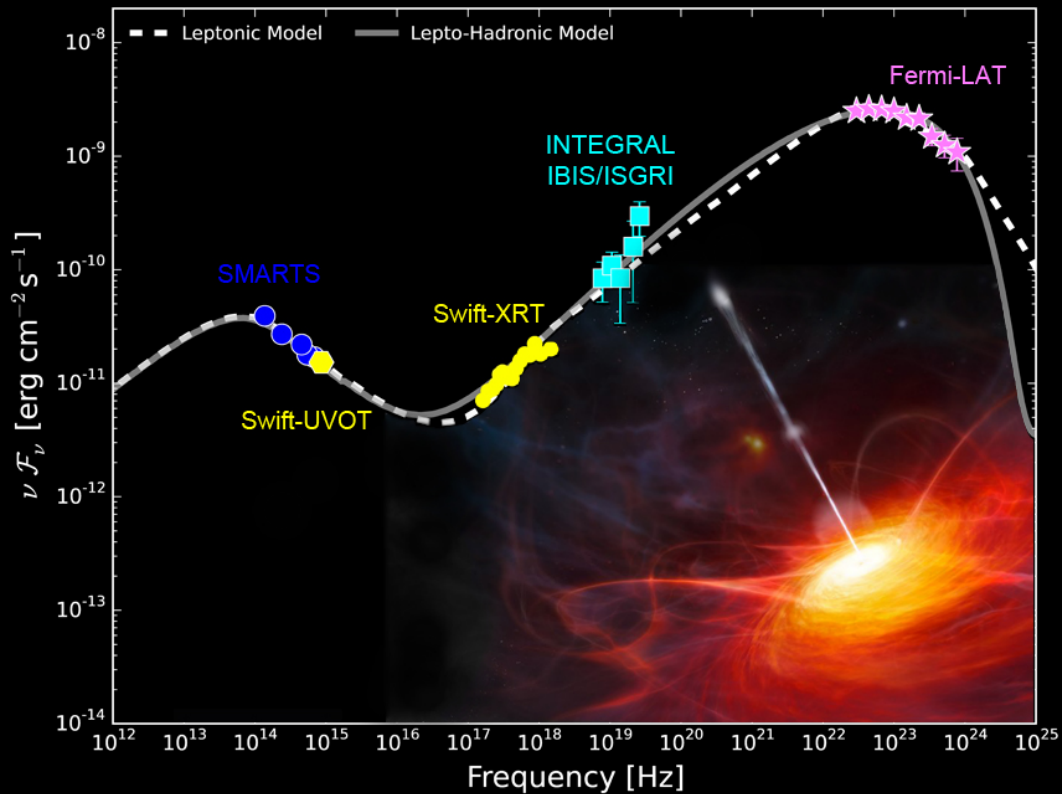


On the Underlying Particles in the Jet of 3C 279

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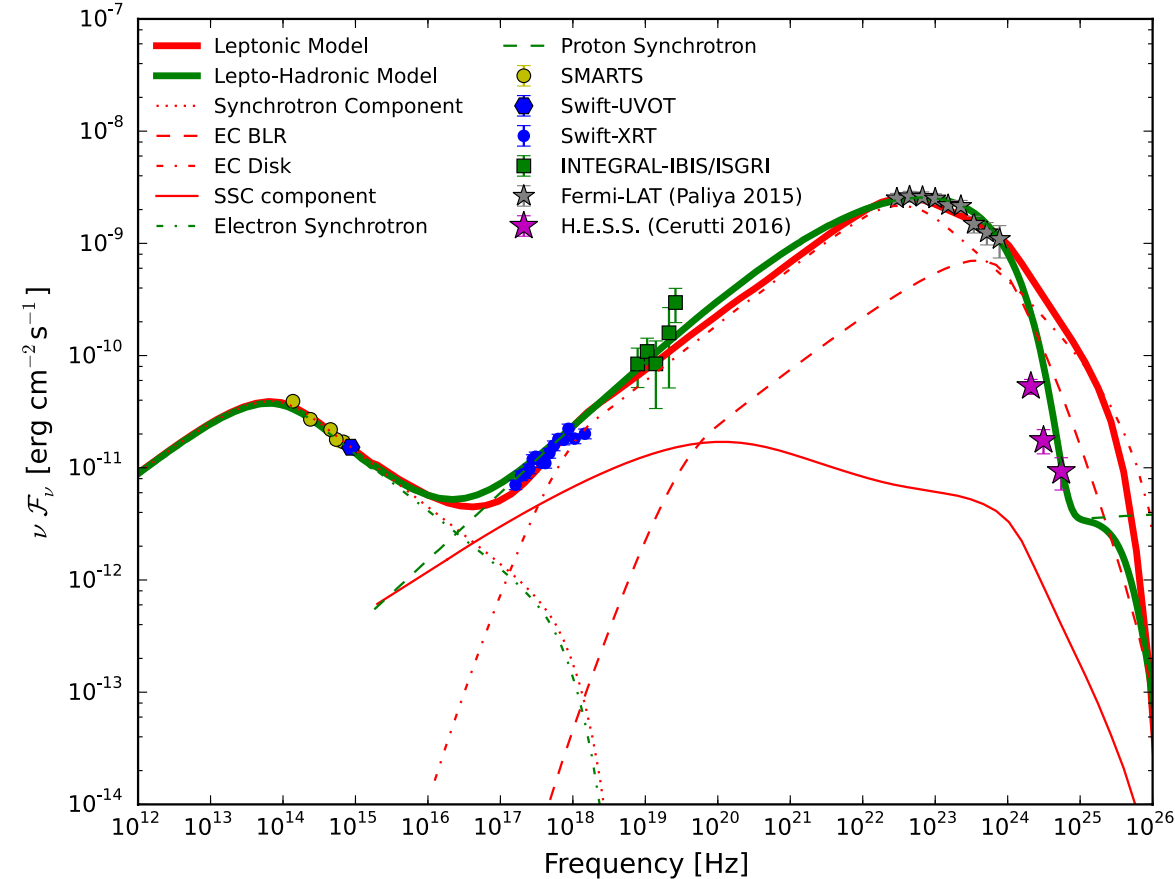


3C 279: Observations of the Outburst in 2015 June

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