



Erratum: “Gamma–Gamma Absorption in the Broad Line Region Radiation Fields of Gamma-Ray Blazars” (2016, ApJ, 821, 102)

Markus Böttcher^{1,2} and Paul Els¹

¹ Centre for Space Research, North-West University, Potchefstroom, 2531, South Africa

² Astrophysical Institute, Department of Physics and Astronomy, Ohio University, Athens, OH 45701, USA

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In the published article, our code to evaluate the $\gamma\gamma$ opacity due to the BLR radiation field contained a numerical error, due to which all opacities are a factor of 2π too low. The corrected Figures 2–4 are shown below. The conclusions of the paper do not change qualitatively, but the constraints on the location of the γ -ray emission region become tighter. In particular, in the case of 3C279, VHE photons beyond ~ 300 GeV, must be emitted significantly beyond the BLR, if produced by Compton scattering of BLR photons.

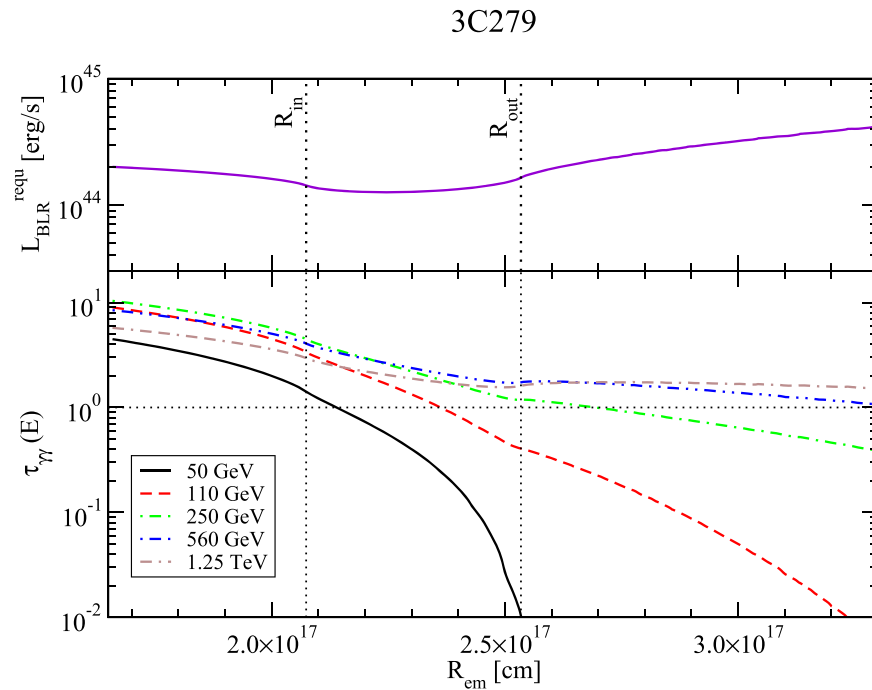


Figure 2. Corrected results for 3C279. Lower panel: $\gamma\gamma$ absorption optical depth as a function of location of the emission region, R_{em} , for a fixed value of u_{BLR} as encountered by the emission region at the respective location (see the text), for several γ -ray photon energies. Upper panel: required luminosity of the BLR, according to the renormalization of the local BLR emissivity (Equation (8) in the published article).

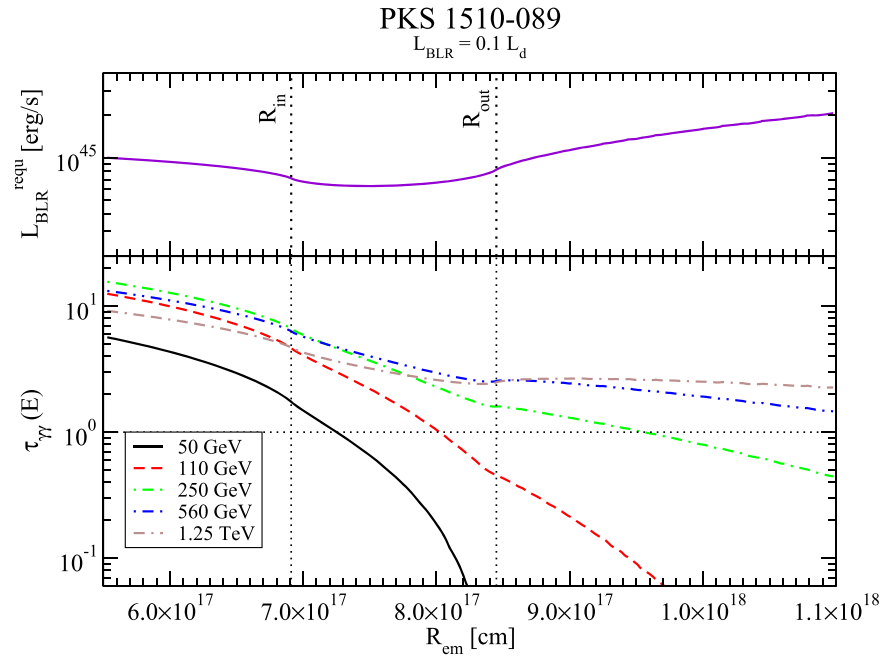


Figure 3. Corrected results for PKS 1510-089, assuming $L_{\text{BLR}} = 0.1 L_d$. Panels and symbols are the same as in Figure 2.

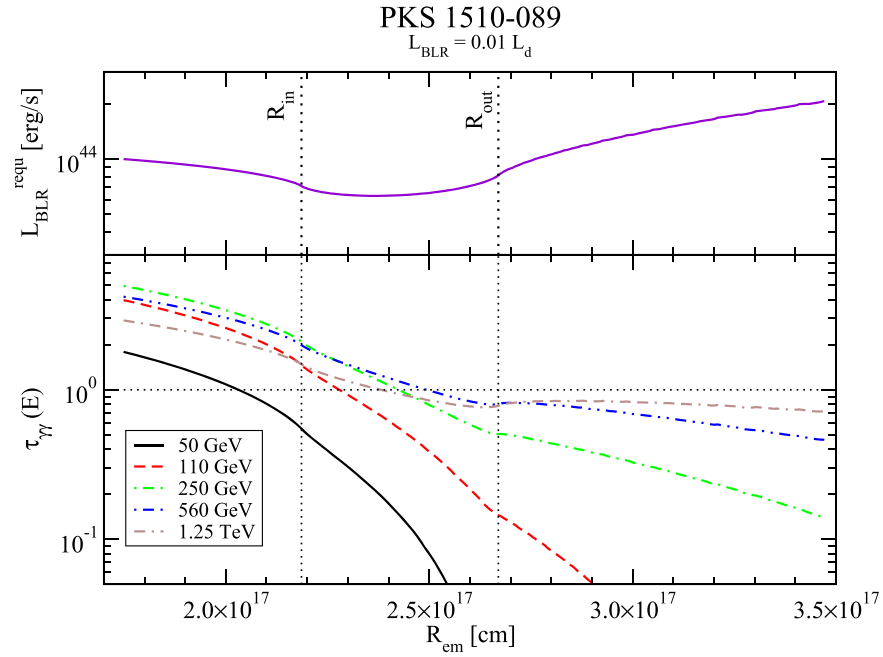


Figure 4. Corrected results for PKS 1510-089, assuming $L_{\text{BLR}} = 0.01 L_d$. Panels and symbols are the same as in Figure 2.

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ORCID iDs

Markus Böttcher  <https://orcid.org/0000-0002-0455-3791>

Reference

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