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## Characteristic for long GRBs with high energy component presence, which not required cosmological corrections

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Several thousands of gamma-ray bursts were observed by various experiments, and during several GRBs very high-energy photons were detected both in space and ground-based experiments (up to some tens of GeV and up to some TeV, respectively). For example, GRB 190114C was detected by Fermi and MAGIC in very wide band up to subTeV energies. 18 photons were observed by Milagrito in energy band 0.1-10 TeV within  $t_{90}$  interval during GRB 970417a. Typically considered short and long GRBs classes separated by  $t_{90}=2s$  and the subgroup of intermediate GRBs was separated in duration interval of  $0.8 s \leq t_{90} \leq 50 s$  with  $< t_{90} > \sim 3 s$  taking into account duration and duration-hardness distributions and such GRBs type reveal in Fermi/GBM and Swift/BAT events analysis. Redshifts were measured for several hundreds of GRBs and allow concluding its cosmological origin, mostly of GRBs sources located at  $z>0.7$ . Therefore redshift should be taken into account for GRBs duration analysis. Here we introduce new value  $R_t$  is ratio of maximum energy photon arrival time to burst duration and it not required cosmological correction. At least 2 groups of long GRBs could be separated using this parameter. The results of these groups characteristics analysis are discussed.

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