

# Inverse Compton scattering and short Gamma-ray bursts

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Very-high-energy (VHE) photon detections from Gamma-ray bursts (GRBs) can provide compelling evidences about the radiative processes, physical composition of the ejecta and acceleration processes. The synchrotron radiation can only explain photons with energies less than  $< 10$  GeV. In the framework of GRB fireball, we present a theoretical model based on synchrotron self-Compton forward shocks to interpret the Fermi-LAT-detected bursts with photons larger than 10 GeV. We explore the range of microphysical parameters and circumburst densities that allow to interpret VHE photons.

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