

# COMPTEL Reloaded: An updated view on the MeV Sky

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The COMPTEL experiment aboard the Compton Gamma-Ray Observatory (CGRO) surveyed the MeV sky (0.75 - 30 MeV) almost uninterruptedly for more than 9 years between April 1991 and June 2000, thereby providing a first all-sky view in the MeV band. Now, about 20 years after the de-orbit of CGRO, COMPTEL data analyses are being still pursued. New imaging techniques allow updated all-sky images (Strong & Collmar 2019) to be produced and new and improved background reduction methods are available. Because no instrumental successor is yet operating or accepted, the COMPTEL data are still the forefront of our knowledge on the MeV sky, and will stay so for the next years to come. The COMPTEL source catalogue (Schönfelder et al. 2000), covering the first 5.5 years of the mission, lists 32 steady sources. This number increased to more than 45 sources in recent analyses, covering now the full COMPTEL mission and applying the improved analysis methods. About half of them are jet sources, mainly blazars (e.g. 3C 273, 3C 279) and some compact binaries (e.g. Cyg X-1, LS 5039). We will summarise the current observational status on sources at soft MeV energies, by providing the latest all-sky maps for different energy bands and various time periods. We also provide an updated COMPTEL source-list which will be compared to the sources listed in the “First catalog of Fermi-LAT sources below 100 MeV” (Principe et al. 2018). Finally we discuss the scientific perspectives of the still ongoing COMPTEL data analyses.

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