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An Optical Gamma-Ray Burst Catalogue with Measured Redshift PART I: Data Release of 535 Gamma-Ray Bursts and Colour Evolution

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We present the largest optical photometry compilation of Gamma-Ray Bursts (GRBs) with measured redshifts (z). Our dataset includes 64813 observations of 535 events (including upper limits) from 28 February 1997 to 18 August 2023. We introduce *grbLC*, a user-friendly web tool for visualising photometry, coordinates, redshift, host-galaxy extinction, and spectral indices for each event in our database. Additionally, we have integrated a Gamma-ray Coordinate Network (GCN) scraper within *grbLC* to automate the collection of magnitudes from GCN circulars. The web tool also includes a Python package for uniformly investigating colour evolution in GRBs. We compute the optical spectral indices of 138 GRBs, and craft a novel procedure to infer the presence of colour evolution in GRBs. By providing a standardised format and a centralised repository for optical photometry, our web-based archive represents a significant step towards unifying various community efforts to collect GRB photometric data. This comprehensive catalogue facilitates population studies by offering light curves (LCs) with improved coverage, as it aggregates data from multiple ground-based observatories and the *Swift* satellite. Consequently, these LCs can be employed to train future LC reconstructions, for an extended inference of the redshift. The data gathering also allows us to fill orbital gaps in the *Swift* observations, particularly at critical points in the LCs, such as the end of the plateau emission or the identification of jet breaks.

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