

The very high- z GRB 210905A

We present the discovery of the very energetic **GRB 210905A at the high redshift $z=6.312$** and its luminous X-ray and optical afterglow. With an *isotropic gamma-ray energy of $E_{iso} \sim 10^{54}$ erg*, GRB 210905A lies in the top 7% GRBs in the Konus-Wind Catalog in terms of energy released. *Its afterglow is also among the most luminous ever observed, and, in particular in the optical at >0.5 d (rest frame)*. The early afterglow light curve can be explained by energy injection and the spectral energy distribution is in agreement with slow cooling in a constant-density environment. The half-opening angle is within the range covered by closer events and thus argues against recent claims of an inverse dependence of the half-opening angle on the redshift. *The collimation-corrected released gamma-ray energy of 1×10^{52} erg which is also among the highest ever measured.* **Despite the great released energy, our findings demonstrate that the properties of this burst are in agreement with those of less distant burst.** ADS link: <https://ui.adsabs.harvard.edu/abs/2022arXiv220204544R/abstract>

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