

Abstract Submitted
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Afterglow photometry and Modeling GRB 091018 APURVA OZA,
University of North Carolina — We focus on continuing the modeling of GRB (Gamma-ray Burst) 091018. Our data is mostly collected across 4 bands (BVRI) from PROMPT (Panchromatic Robotic Optical Monitoring and Polarimetry Telescopes) approximately 4.1 hours after the trigger. We have added NIR, UVOT, X-ray, and more optical points to our datasets. After rejecting the original assertion of dust evolution by linking extinction parameters with Galapagos (a software that employs genetic algorithms to output the best fit model with our circum-burst GRB parameters (we have settled on a model with the circumburst density index k , at -1.75 which is close to the wind-blown medium of $k=-2$). In addition to k , the results of our baseline fit indicate that the cooling break is above the data, and may be crossing the synchrotron peak during the early UVOT data. This cross-over will yield interesting results about the circumburst medium of a GRB at early times. Photometry GRBs live was also conducted along with instrumentation techniques.

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