From:"Stephen.T.Holland@nasa.gov" <Stephen.T.Holland@nasa.gov>Subject:Gamma Ray Bursts 2010 Conference - Abstract SubmissionDate:September 15, 2010 9:56:15 AM EDTTo:"Holland, Stephen T. (GSFC-660.1)[USRA]" <stephen.t.holland@nasa.gov>Reply-To:"Holland, Stephen T. (GSFC-660.1)[USRA]" <stephen.t.holland@nasa.gov>

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Title: GRB 081029: A Step Towards Understanding Multiple Afteralow Components Co-Authors: Massimiliano De Pasquale, Jirong Mao, Taka Sakamoto, Patricia Schady, Stevano Covino, Paolo D'Avanzo, Angelo Antonelli, Valerio D'Elia, Guido Chincarini, Fabrizio Fiore Abstract: We present an analysis of the unusual optical light curve of the gamma-ray burst GRB 081029 at a redshift of z = 3.8479. We combine X and optical observations from $\{ s \in X$ with optical and infrared data from REM to obtain a detailed data set extending from $\scriptstyle 0^2\$ approx 10², s to $\scriptstyle 0^5\$ after the BAT trigger, and from $10 \sim \text{keV}$ to $16 \setminus ,000 \sim \setminus AA$. The X-ray afterglow showed a shallow initial decay followed by a rapid decay after about 18\,000~s. The optical afterglow, however, shows an uncharacteristic rise at about 5000~s that has no corresponding feature in the \$X\$-ray light curve. The data are not consistent with a single-component jet. It is possible that there are multiple physical components contributing to the afterglow of GRB~081029.

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