

TITLE: GCN GRB OBSERVATION REPORT  
NUMBER: 983  
SUBJECT: GRB010222: fading behavior  
DATE: 01/02/24 03:39:15 GMT  
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K. Z. Stanek, P. Challis, S. Jha, R. Kilgard, J. McDowell  
(Harvard-Smithsonian CfA) and P. M. Garnavich (Notre Dame) report:

We have obtained additional R-band data for the optical afterglow of  
the GRB010222 using the F. L. Whipple Observatory 1.2m telescope:

HJD-2450000	UT	R_c	exp
1963.9457	010223 10:48	20.16+-0.07	600 sec

Combined with our earlier R-band data (GCN 970), this indicates a  
power-law decay with a slope of 0.89, consistent with previous  
determinations (GCNs 973, 975).

In the B-band, between 4.3 hours and 24.2 hours after the burst the  
afterglow dimmed by about 1.8 magnitudes:

HJD-2450000	UT	B	exp
1962.9855	010222 11:46	18.46+-0.02	600 sec
1963.8173	010223 07:43	20.25+-0.10	600 sec

This is consistent with no color evolution between B and R.

Errors in the magnitudes are statistical only. The B-band magnitudes  
are relative to star "A" as marked in the finding chart at  
<http://cfa-www.harvard.edu/cfa/oir/Research/GRB/>, assuming its  
magnitude B=17.6.

Reductions of additional data are under way.

This message can be cited.