GRB 131117A: VLT/X-shooter redshift

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N. R. Tanvir (U. Leicester), J. P. U. Fynbo (DARK/NBI), L. Kaper (U. Amsterdam)
and V. D'Elia (ASI/ASDC) report:

We observed the afterglow of GRB 131117A (Page et al. GCN 15490,
Trotter et al. GCN 15491, Tanga et al. GCN 15493) with the VLT
X-shooter spectrograph covering a spectral range 3200A to 18000A.
Poor conditions meant that observations could not start until 01:42 UT,
68 minutes post-burst.

The continuum level is faint, but we see a strong break corresponding
to Ly-alpha at a redshift of z=4.042. This is supported by the detection
of absorption lines corresponding to SiII 1259/1260, SiIV 1393/1402
and SiII 1526. There is also a clear Ly-a forest blueward of the break.
We therefore propose this as the redshift of the GRB, noting it
is consistent with the photometric redshift of Tanga et al. (GCN15493).

We thank the staff at Paranal, particularly Christophe Martayan,
for their support in obtaining these observations.