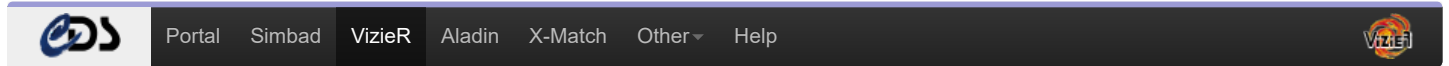




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Authors	Curran, P. A., Coriat, M., Miller-Jones, J. C. A., Armstrong, R. P., Edwards, P. G., Sivakoff, G. R., Woudt, P., Altamirano, D., BELLONI, Tomaso Maria Melchiorre, Corbel, S., Fender, R. P., Kording, E. G., Krimm, H. A., Markoff, S., Migliari, S., Russell, D. M., Stevens, J., Tzioumis, T.
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Journal	VizieR Online Data Catalog



J/MNRAS/437/3265 Swift J1745-26 polarized jet (Curran+, 2014)

The evolving polarized jet of black hole candidate Swift J1745-26.
 Curran P.A., Coriat M., Miller-Jones J.C.A., Armstrong R.P., Edwards P.G.,
 Sivakoff G.R., Woudt P., Altamirano D., Belloni T.M., Corbel S.,
 Fender R.P., Kording E.G., Krimm H.A., Markoff S., Migliari S.,
 Russell D.M., Stevens J., Tzioumis T.
 <Mon. Not. R. Astron. Soc., 437, 3265-3273 (2014)>
 =[2014MNRAS.437.3265C](#) (SIMBAD/NED BibCode)

ADC_Keywords: Binaries, X-ray ; Radio sources ; Polarization

Keywords: binaries: close - Swift J1745-26

Abstract:

Swift J1745-26 is an X-ray binary towards the Galactic Centre that was detected when it went into outburst in 2012 September. This source is thought to be one of a growing number of sources that display 'failed outbursts', in which the self-absorbed radio jets of the transient source are never fully quenched and the thermal emission from the geometrically thin inner accretion disc never fully dominates the X-ray flux. We present multifrequency data from the Very Large Array, Australia Telescope Compact Array and Karoo Array Telescope (KAT-7) radio arrays, spanning the entire period of the outburst. Our rich data set exposes radio emission that displays a high level of large-scale variability compared to the X-ray emission and deviations from the standard radio-X-ray correlation that are indicative of an unstable jet and confirm the outburst's transition from the canonical hard state to an intermediate state. We also observe steepening of the spectral index and an increase of the linear polarization to a large fraction (~50%) of the total flux, as well as a rotation of the electric vector position angle. These are consistent with a transformation from a self-absorbed compact jet to optically thin ejecta - the first time such a discrete ejection has been observed in a failed outburst - and may imply a complex magnetic field geometry.

Description:

Swift J1745-26 was observed by the VLA from 2012 September 18 to November 17 (16 epochs in the most extended, A, configuration) at multiple frequency bands from 1 to 48GHz, though on the majority of the epochs the source was only observed up to 26GHz.

The ATCA carried out a long-term monitoring campaign on Swift J1745-26 at 5.5 and 9GHz during 24 epochs from 2012 September 19 to 2013 March 27.

Observations with the seven-dish MeerKAT test array, KAT-7 were performed at a central frequency of 1.822GHz during 13 epochs from 2012 September 13 to November 11.

Objects:

RA	(2000)	DE	Designation(s)
17 45 10.85	-26 24 12.6		Swift J1745-26 = SWIFT J174510.8-262411

File Summary:

FileName	Lrecl	Records	Explanations
ReadMe	80	.	This file
table2.dat	54	156	Radio flux densities of Swift J1745-26 (before systematic errors are added)

Byte-by-byte Description of file: [table2.dat](#)

Bytes	Format	Units	Label	Explanations
1- 9	F9.3	d	Epoch	Epoch (MJD)
11- 15	F5.2	GHz	Freq	Frequency
17- 21	F5.2	mJy	S	Flux density
24- 28	F5.2	mJy	e_S	Flux density error
30- 35	F6.3	mJy	SQ	? Stokes Q flux density (in mJy/beam)
37- 41	F5.3	mJy	e_SQ	? Stokes Q flux density error (in mJy/beam)
43- 48	F6.3	mJy	SU	? Stokes U flux density (in mJy/beam)
50- 54	F5.3	mJy	e_SU	? Stokes U flux density error (in mJy/beam)

History:

From electronic version of the journal

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