

You have selected the following parameters to search on:

Redshift: Between 0.016400 and 0.029800
Include ANY Object Type:
Exclude ANY Object Type:
Parameters for Distances and Cosmology: $H_0 = 73.0$; $\Omega_{\text{matter}} = 0.27$; $\Omega_{\text{vacuum}} = 0.73$;
Derived Quantities use a Redshift corrected to a Reference Frame defined by the 3K CMB

NED results within 15.000 arcmin of 12h58m46.66000s, +24d27m39.1800s (Equatorial: J2000.0)

3 objects found in NED.

SOURCE LIST														
Object list is sorted on Distance to search center														
Row No.	Object Name (* => Essential Note)	EquJ2000.0		Object Type	Velocity/Redshift		Mag./	Separ.	Refs	Notes	Number of			
		RA	DEC		km/s	z	Filter	arcmin			Phot	Posn	Vel/z	Diam As
1	SDSS J125834.76+242336.7	12h58m34.7s	+24d23m37s	G	6769	0.022579	17.3g	4.864	3	0	19	1	1	4
2	MRK 0447	12h58m10.0s	+24d20m56s	G	6660	0.022215	16.5	10.714	23	0	35	5	5	8
3	SDSS J125845.57+241402.1	12h58m45.5s	+24d14m03s	G	6803	0.022692	17.90	13.610	4	0	6	1	1	0

Detailed information for each object

Object No. 1 - SDSS J125834.76+242336.7

INDEX for SDSS J125834.76+242336.7

Essential Data (jump to sub-section of this query report):

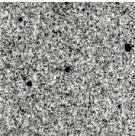
[Essential Note](#)[Cross-IDs](#)[Coordinates](#)[Basic Data](#)[Quantities Derived from Redshift](#)[Redshift-Independent Distances](#)[Quick-Look Photometry and Luminosities](#)

NEW

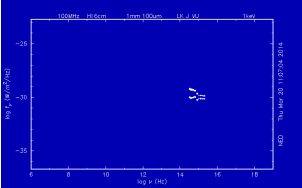
[Quick-Look Angular and Physical Sizes](#)

[Classifications](#)[Foreground Galactic Extinction](#)[External Services](#)

Detailed Data (NED queries):



Images



19 Photometric data point(s) and SED

[Spectra](#)[Redshift-Independent Distances](#)[3 Reference\(s\)](#)[1 Position data point\(s\)](#)[1 Redshift data point\(s\)](#)[4 Diameter data point\(s\)](#)

ESSENTIAL NOTE for SDSS J125834.76+242336.7 (Back to INDEX)

N/A

CROSS-IDENTIFICATIONS for SDSS J125834.76+242336.7 (Back to INDEX)			
Object Names	Type	Object Names	Type
SDSS J125834.76+242336.7	G	AGC 732413	RadioS
GALEXASC J125834.81+242337.2	UvS	ASK 667580.0	G

COORDINATES for SDSS J125834.76+242336.7 (Back to INDEX)						
Position Reference: 2007SDSS6.C...0000:						
Reference	Frame	Longitude (degrees)	Latitude (degrees)	RA	DEC	Uncertainty Ellipse (arcsec) Semimajor Semiminor PA(deg)

ned.ipac.caltech.edu/cgi-bin/objsearch?in_csys=Equatorial&in_equinox=J2000.0&lon=12h58m46.66s&lat=%2B24d27m39.18s&radi... 1/11

Equatorial (B1950.0)	194.035650	24.663233	12h56m08.556s	+24d39m47.64s	5.00E-01	5.00E-01	0
Equatorial (J2000.0)	194.644858	24.393543	12h58m34.766s	+24d23m36.75s	5.00E-01	5.00E-01	0
Ecliptic (B1950.0)	182.349600	28.068404			5.00E-01	5.00E-01	0
Ecliptic (J2000.0)	183.051576	28.067586			5.00E-01	5.00E-01	0
Galactic	333.778423	86.827709			5.00E-01	5.00E-01	0
SuperGalactic	93.067222	7.206730			5.00E-01	5.00E-01	0

Additional detailed measurements with references are also available by clicking below:

[1 Position data point\(s\)](#)

REDSHIFT-INDEPENDENT DISTANCES for SDSS J125834.76+242336.7 [\(Back to INDEX\)](#)

N/A

CLASSIFICATIONS (TYPES, ATTRIBUTES) for SDSS J125834.76+242336.7 [\(Back to INDEX\)](#)

N/A

FOREGROUND GALACTIC EXTINCTION for SDSS J125834.76+242336.7 [\(Back to INDEX\)](#)

NEW Galactic Extinction from the [Schlafly & Finkbeiner 2011, Appendix; 2011ApJ...737..103S \(SF11\)](#) recalibration of the [Schlegel, Finkbeiner & Davis 1998, Appendix B; 1998ApJ...500..525S \(SFD98\)](#) infrared-based dust map. The map is based on dust emission from COBE/DIRBE and IRAS/ISSA; the recalibration assumes a [Fitzpatrick \(1999PASP...111...63F\)](#) reddening law with $R_V = 3.1$ and different source spectrum than SFD98.

	L a n d o l t					S D S S					U K I R T			
Filter	U	B	V	R	I	u	g	r	i	z	J	H	K	L'
[μ m]	(0.35)	(0.43)	(0.54)	(0.64)	(0.80)	(0.36)	(0.47)	(0.62)	(0.75)	(0.89)	(1.25)	(1.66)	(2.19)	(3.78)
A_λ [mag]	0.052	0.043	0.033	0.026	0.018	0.050	0.039	0.027	0.020	0.015	0.008	0.005	0.004	0.002

[Show/Hide \$A_\lambda\$ magnitudes in all 88 photometric bands based on SF11](#)

For completeness, we include the original SFD98 values:

	L a n d o l t					S D S S					U K I R T			
Filter	U	B	V	R	I	u	g	r	i	z	J	H	K	L'
[μ m]	(0.34)	(0.44)	(0.54)	(0.65)	(0.81)	(0.35)	(0.49)	(0.63)	(0.78)	(0.93)	(1.27)	(1.67)	(2.22)	(3.81)
A_λ [mag]	0.062	0.049	0.038	0.030	0.022	0.059	0.043	0.031	0.024	0.017	0.010	0.007	0.004	0.002

Galactic Extinction based on H I Column Densities and Galaxy Counts ([Burstein & Heiles; 1982AJ.....87.1165B](#)) assuming $R_V = 3.1$:
 $A_B = 0.070$ mag

See [Notes on Galactic Extinction](#) for important caveats.

BASIC DATA for SDSS J125834.76+242336.7 [\(Back to INDEX\)](#)

Helio. Radial Velocity : 6769 +/- 44 km/s
Redshift : 0.022579 +/- 0.000147 [2011AJ....142..170H](#)
Major Diameter (arcmin) : 0.21
Minor Diameter (arcmin) : 0.18
Magnitude and Filter : 17.3g
Classifications : Extended Src [SDSS]

NOTE: This information is indicative only. With the exception of the redshift they are unreferenced and highly inhomogeneous as to their origin. The Radial Velocity (when available) is computed from the listed redshift. The remaining values are designed to orient the user with a quick-look, overall assessment of the general properties of the object in question. They are not averages nor are they standardized in any way.

Additional detailed measurements with references are also available by clicking below:

[1 Redshift data point\(s\)](#) [19 photometric data point\(s\)](#) [4 Diameter data point\(s\)](#)

QUANTITIES DERIVED FROM REDSHIFT for SDSS J125834.76+242336.7 [\(Details\)](#)[\(Back to INDEX\)](#)

Calculated and Corrected Velocities
V (Heliocentric) : 6769 +/- 44 km/s [2011AJ....142..170H](#)
V (Kinematic LSR) : 6777 +/- 44 km/s [1986MNRAS.221.1023K](#)

V (Galactocentric GSR)	:	6771 +/-	44 km/s	1991RC3.9.C...0000d
V (Local Group)	:	6738 +/-	44 km/s	1996AJ....111..794K
V (3K CMB)	:	7050 +/-	48 km/s	1996ApJ...473..576F
V (Virgo Infall only)	:	6966 +/-	47 km/s	2000ApJ...529..786M
V (Virgo + GA only)	:	7316 +/-	53 km/s	2000ApJ...529..786M
V (Virgo + GA + Shapley)	:	7361 +/-	53 km/s	2000ApJ...529..786M

Hubble Flow Distance and Distance Modulus (where H ₀ = 73.0 +/- 5 km/sec/Mpc)				
D (Galactocentric GSR)	:	92.7 +/-	6.5 Mpc	(m-M) = 34.84 +/- 0.15 mag
D (Local Group)	:	92.3 +/-	6.5 Mpc	(m-M) = 34.83 +/- 0.15 mag
D (3K CMB)	:	96.6 +/-	6.8 Mpc	(m-M) = 34.92 +/- 0.15 mag
D (Virgo Infall only)	:	95.4 +/-	6.7 Mpc	(m-M) = 34.90 +/- 0.15 mag
D (Virgo + GA only)	:	100.2 +/-	7.0 Mpc	(m-M) = 35.00 +/- 0.15 mag
D (Virgo + GA + Shapley)	:	100.8 +/-	7.1 Mpc	(m-M) = 35.02 +/- 0.15 mag

Scale at Hubble Flow Distances				
Scale (Galactocentric GSR)	:	450 pc/arcsec	= 0.450 kpc/arcsec	= 26.98 kpc/arcmin = 1.62 Mpc/degree
Scale (Local Group)	:	448 pc/arcsec	= 0.448 kpc/arcsec	= 26.85 kpc/arcmin = 1.61 Mpc/degree
Scale (3K CMB)	:	468 pc/arcsec	= 0.468 kpc/arcsec	= 28.09 kpc/arcmin = 1.69 Mpc/degree
Scale (Virgo Infall only)	:	463 pc/arcsec	= 0.463 kpc/arcsec	= 27.76 kpc/arcmin = 1.67 Mpc/degree
Scale (Virgo + GA only)	:	486 pc/arcsec	= 0.486 kpc/arcsec	= 29.15 kpc/arcmin = 1.75 Mpc/degree
Scale(Virgo + GA + Shapley):	:	489 pc/arcsec	= 0.489 kpc/arcsec	= 29.33 kpc/arcmin = 1.76 Mpc/degree

To Search for Nearby Objects (Physical Companions): Enter Your Preferred Values and click on "Submit Environment Search" button

Search for Objects within +/- arcmin where 100 kpc = 3.409 arcmin

and Selected Redshift, defined by the Velocity Range: from to km/sec where

V(Heliocentric) = 6769 km/sec

Cosmology-Corrected Quantities [H ₀ = 73.00 km/sec/Mpc, Ω _{matter} = 0.27, Ω _{vacuum} = 0.73]				
[Redshift 0.023517 as corrected to the Reference Frame defined by the 3K Microwave Background Radiation]				
Luminosity Distance	:	98.4 Mpc	(m-M) = 34.96 mag	
Angular-Size Distance	:	93.9 Mpc	(m-M) = 34.86 mag	
Co-Moving Radial Distance	:	96.1 Mpc	(m-M) = 34.91 mag	
Co-Moving Tangential Dist.	:	96.1 Mpc	(m-M) = 34.91 mag	
Co-Moving Volume	:	0.00372 Gpc ³		
Light Travel-Time	:	0.310 Gyr		
Age at Redshift 0.023517	:	12.989 Gyr		
Age of Universe	:	13.299 Gyr		
Scale (Cosmology Corrected):	:	455 pc/arcsec	= 0.455 kpc/arcsec	= 27.32 kpc/arcmin = 1.64 Mpc/degree
Surface Brightness Dimming	:	Flux Density per Unit Area = 0.91121; Magnitude per Unit Area = 0.1009 mag		

To change Cosmological Input Parameters for Derived Quantities: Enter Your Preferred Values and click on "Submit Changed Hubble Parameters for this object" button

H₀ Ω_{matter} Ω_{vacuum}

Correct Redshift To the Reference Frame defined by: as Input for Calculation of the Distances and Cosmology-Corrected Quantities

QUICK-LOOK PHOTOMETRY and LUMINOSITIES for SDSS J125834.76+242336.7 (Back to INDEX)

The brightest flux in each of the following spectral regions, when available:
Gamma-Ray (ν > 2E19 Hz); X-Ray (2E19 Hz > ν > 2E16 Hz); Ultraviolet (2E16 Hz > ν > 9E14 Hz); Visual (9E14 Hz > ν > 3E14 Hz); Near-Infrared (3E14 Hz > ν > 6E13 Hz); Mid-Infrared (6E13 Hz > ν > 7.5E12 Hz); Far-Infrared (7.5E12 Hz > ν > 1E12 Hz); Sub-Millimeter (1E12 Hz > ν > 3E11 Hz); Millimeter (3E11 Hz > ν > 3E10 Hz); Radio (3E10 Hz > ν).

Spectral Region	Band	Apparent Mag or Flux	Refcode	Absolute Mag or vL _ν [W]	vL _ν [L _⊙ (Bolometric)]
Ultraviolet	NUV (GALEX) AB	18.4607 +/- 0.0356672 mag	2012GASC..C...0000S	-16.50 +/- 0.50 [mag]	5.83E+08 +/- 1.18E+08
Visual	z (SDSS CModel) AB	16.849 asinh mag	2007SDSS6.C...0000:	-18.12 [mag]	6.35E+08

NOTE: The above quantities are derived using a Distance Modulus of 34.96 mag corresponding to a Luminosity Distance of 98.4 Mpc [assuming 10%uncertainty] using the [Cosmology-Corrected Quantities](#).
The quantities quoted above have not necessarily been corrected for foreground extinction, and no K-Corrections have been applied.

View details and SED for [19 Photometric data point\(s\)](#) available in NED.

NEW QUICK-LOOK ANGULAR & PHYSICAL DIAMETERS for SDSS J125834.76+242336.7 (Back to INDEX)

The largest diameters in the Visual and Near-Infrared spectral regions, when available:

Passband	Apparent Major Axis (2a) [arcsec]	Apparent Minor Axis (2b) [arcsec]	PA [degrees] (J2000.0)	Reference Level	Refcode	Physical Major Axis (2a) [kpc]	Physical Minor Axis (2b) [kpc]
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r (SDSS Isophotal)	13.97	11.04	130	25.0 mag arcsec ⁻²	2007SDSS6.C...0000:	6.83	5.40
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NOTE: At $z \leq 0.5$, physical diameters are derived using a [Scale at the Hubble Flow Distance \(Virgo + GA + Shapley\)](#) of 0.489 kpc/arcsec. The quantities quoted above have not necessarily been corrected for foreground extinction.

View details for [4 Diameter data point\(s\)](#) available in NED.

EXTERNAL ARCHIVES AND SERVICES for SDSS J125834.76+242336.7 [Help \(Back to INDEX\)](#)

Data Related Directly to Object Names	Site/Service
Query SIMBAD by primary NED object name -- SDSS J125834.76+242336.7	SIMBAD (CDS, Strasbourg, France)
Query SDSS Sky Server -- SDSS J125834.76+242336.7	SDSS Sky Server
Query GALEX (NUV/FUV) Mission Archive (6' search radius) -- SDSS J125834.76+242336.7	GALEX Mission Data Archive at MAST
Explore IRSA resources with RADAR (10" search radius) -- SDSS J125834.76+242336.7	NASA/IPAC Infrared Science Archive (IRSA)
General Archive Resources -- All queries centered at 12h58m34.7s, +24d23m37s (J2000)	Site/Service
Query Optical and UV Mission Archives (Default search radius)	Multimission Archive at STScI (MAST)
Query High Energy Mission Archives (Default search radius)	HEASARC (NASA/GSFC)
Explore resources with DataScope (15' search radius)	HEASARC (NASA/GSFC)
Query SDSS Sky Server -- SDSS J125834.76+242336.7	SDSS Sky Server
Query IRSA for WISE images (10' search radius)	NASA/IPAC Infrared Science Archive (IRSA)
Retrieve 2MASS Atlas Images Band(s): <input type="text" value="Ks"/> Size: <input type="text" value="2'"/>	NASA/IPAC Infrared Science Archive (IRSA)
Retrieve IRAS ISSA Images Band(s): <input type="text" value="60um"/> Size: <input type="text" value="30'"/>	NASA/IPAC Infrared Science Archive (IRSA)
1-D Coadd of IRAS Scans (ADDSCAN/SCANPI)	NASA/IPAC Infrared Science Archive (IRSA)
Retrieve NVSS Image Size: <input type="text" value="15'"/> <input checked="" type="radio"/> Contours (PS) <input type="radio"/> JPEG <input type="radio"/> FITS File	NRAO/VLA Sky Survey (NVSS)
Retrieve FIRST Image Size: <input type="text" value="15'"/> <input checked="" type="radio"/> GIF <input type="radio"/> FITS File	Faint Images of the Radio Sky at Twenty-Centimeters
NRAO Archive 1 arcminute search radius (EVLA, VLA and VLBA)	The NRAO Data Archive System

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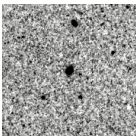
Object No. 2 - MRK 0447

INDEX for MRK 0447

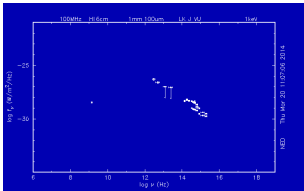
Essential Data (jump to sub-section of this query report):

- [Essential Note](#)
- [Cross-IDs](#)
- [Coordinates](#)
- [Basic Data](#)
- [Quantities Derived from Redshift](#)
- [Redshift-Independent Distances](#)
- [Quick-Look Photometry and Luminosities](#)
- NEW** [Quick-Look Angular and Physical Sizes](#)
- [Classifications](#)
- [Foreground Galactic Extinction](#)
- [External Services](#)

Detailed Data (NED queries):



[Images](#)



[35 Photometric data point\(s\) and SED](#)

- [Spectra](#)
- [Redshift-Independent Distances](#)
- [23 Reference\(s\)](#)
- [5 Position data point\(s\)](#)
- [5 Redshift data point\(s\)](#)
- [8 Diameter data point\(s\)](#)
- [RC3 data](#)

ESSENTIAL NOTE for MRK 0447 [\(Back to INDEX\)](#)

N/A

CROSS-IDENTIFICATIONS for MRK 0447 [\(Back to INDEX\)](#)

Object Names	Type	Object Names	Type
MRK 0447	UvES	MAPS-NGP O_379_0243991	G

KUG 1255+246	G	NPM1G +24.0300	G
2MASX J12581002+2420555	IrS	PGC 044418	G
SDSS J125809.99+242056.0	G	NVSS J125809+242051	RadioS
SDSS J125809.99+242056.1	G	2XMM J125810.1+242100	XrayS
GALEXASC J125809.98+242056.5	UvS	2XMMp J125810.1+242058	XrayS
IRAS F 12557+2436	IrS	IDF095 194	G
[RC2] A1255+24	G		
AGC 221204	RadioS		
ASK 667070.0	G		

COORDINATES for MRK 0447 [\(Back to INDEX\)](#)

Position Reference:[2007SDSS6.C...0000:](#)

Reference	Frame	Longitude (degrees)	Latitude (degrees)	RA	DEC	Uncertainty Ellipse (arcsec)		
						Semimajor	Semiminor	PA(deg)
Equatorial (B1950.0)		193.932161	24.618732	12h55m43.719s	+24d37m07.43s	5.00E-01	5.00E-01	0
Equatorial (J2000.0)		194.541655	24.348918	12h58m09.997s	+24d20m56.10s	5.00E-01	5.00E-01	0
Ecliptic (B1950.0)		182.275821	27.987242			5.00E-01	5.00E-01	0
Ecliptic (J2000.0)		182.977786	27.986432			5.00E-01	5.00E-01	0
Galactic		331.899935	86.834533			5.00E-01	5.00E-01	0
SuperGalactic		93.087858	7.104704			5.00E-01	5.00E-01	0

Additional detailed measurements with references are also available by clicking below:

[5 Position data point\(s\)](#)

REDSHIFT-INDEPENDENT DISTANCES for MRK 0447 [\(Back to INDEX\)](#)

N/A

CLASSIFICATIONS (TYPES, ATTRIBUTES) for MRK 0447 [\(Back to INDEX\)](#)

N/A

FOREGROUND GALACTIC EXTINCTION for MRK 0447 [\(Back to INDEX\)](#)

NEW Galactic Extinction from the [Schlafly & Finkbeiner 2011, Appendix; 2011ApJ...737..103S \(SF11\)](#) recalibration of the [Schlegel, Finkbeiner & Davis 1998, Appendix B; 1998ApJ...500..525S \(SFD98\)](#) infrared-based dust map. The map is based on dust emission from COBE/DIRBE and IRAS/ISSA; the recalibration assumes a [Fitzpatrick \(1999PASP...111...63F\)](#) reddening law with $R_V = 3.1$ and different source spectrum than SFD98.

	L a n d o l t					S D S S					U K I R T			
Filter [μm]	U (0.35)	B (0.43)	V (0.54)	R (0.64)	I (0.80)	u (0.36)	g (0.47)	r (0.62)	i (0.75)	z (0.89)	J (1.25)	H (1.66)	K (2.19)	L' (3.78)
A _λ [mag]	0.056	0.047	0.036	0.028	0.020	0.055	0.043	0.030	0.022	0.016	0.009	0.006	0.004	0.002

[Show/Hide A_λ magnitudes in all 88 photometric bands based on SF11](#)

For completeness, we include the original SFD98 values:

	L a n d o l t					S D S S					U K I R T			
Filter [μm]	U (0.34)	B (0.44)	V (0.54)	R (0.65)	I (0.81)	u (0.35)	g (0.49)	r (0.63)	i (0.78)	z (0.93)	J (1.27)	H (1.67)	K (2.22)	L' (3.81)
A _λ [mag]	0.069	0.055	0.042	0.034	0.025	0.065	0.048	0.035	0.026	0.019	0.011	0.007	0.005	0.002

Galactic Extinction based on H I Column Densities and Galaxy Counts ([Burstein & Heiles; 1982AJ.....87.1165B](#)) assuming $R_V = 3.1$:

$A_B = 0.070$ mag

See [Notes on Galactic Extinction](#) for important caveats.

BASIC DATA for MRK 0447 [\(Back to INDEX\)](#)

Helio. Radial Velocity : 6660 +/- 42 km/s
 Redshift : 0.022215 +/- 0.000140 [1991RC3.9.C...0000d](#)
 Major Diameter (arcmin) : 0.3
 Minor Diameter (arcmin) : 0.2
 Magnitude and Filter : 16.5
 Classifications : Compact

NOTE: This information is indicative only. With the exception of the redshift they are unreferenced and highly inhomogeneous as to their origin. The Radial Velocity (when available) is computed from the listed redshift. The remaining values are designed to orient the user with a quick-look, overall assessment of the general properties of the object in question. They are not averages nor are they standardized in any way.

Additional detailed measurements with references are also available by clicking below:
[5 Redshift data point\(s\)](#) [35 photometric data point\(s\)](#) [8 Diameter data point\(s\)](#)

QUANTITIES DERIVED FROM REDSHIFT for MRK 0447 ([Details](#))([Back to INDEX](#))

Calculated and Corrected Velocities

V (Heliocentric)	: 6660 +/- 42 km/s	1991RC3.9.C...0000d
V (Kinematic LSR)	: 6668 +/- 42 km/s	1986MNRAS.221.1023K
V (Galactocentric GSR)	: 6661 +/- 42 km/s	1991RC3.9.C...0000d
V (Local Group)	: 6629 +/- 42 km/s	1996AJ...111..794K
V (3K CMB)	: 6941 +/- 46 km/s	1996ApJ...473..576F
V (Virgo Infall only)	: 6857 +/- 45 km/s	2000ApJ...529..786M
V (Virgo + GA only)	: 7209 +/- 51 km/s	2000ApJ...529..786M
V (Virgo + GA + Shapley)	: 7253 +/- 51 km/s	2000ApJ...529..786M

Hubble Flow Distance and Distance Modulus (where $H_0 = 73.0 \pm 5$ km/sec/Mpc)

D (Galactocentric GSR)	: 91.2 +/- 6.4 Mpc	(m-M) = 34.80 +/- 0.15 mag
D (Local Group)	: 90.8 +/- 6.4 Mpc	(m-M) = 34.79 +/- 0.15 mag
D (3K CMB)	: 95.1 +/- 6.7 Mpc	(m-M) = 34.89 +/- 0.15 mag
D (Virgo Infall only)	: 93.9 +/- 6.6 Mpc	(m-M) = 34.86 +/- 0.15 mag
D (Virgo + GA only)	: 98.8 +/- 6.9 Mpc	(m-M) = 34.97 +/- 0.15 mag
D (Virgo + GA + Shapley)	: 99.4 +/- 7.0 Mpc	(m-M) = 34.99 +/- 0.15 mag

Scale at Hubble Flow Distances

Scale (Galactocentric GSR)	: 442 pc/arcsec = 0.442 kpc/arcsec = 26.54 kpc/arcmin = 1.59 Mpc/degree
Scale (Local Group)	: 440 pc/arcsec = 0.440 kpc/arcsec = 26.41 kpc/arcmin = 1.58 Mpc/degree
Scale (3K CMB)	: 461 pc/arcsec = 0.461 kpc/arcsec = 27.66 kpc/arcmin = 1.66 Mpc/degree
Scale (Virgo Infall only)	: 455 pc/arcsec = 0.455 kpc/arcsec = 27.32 kpc/arcmin = 1.64 Mpc/degree
Scale (Virgo + GA only)	: 479 pc/arcsec = 0.479 kpc/arcsec = 28.73 kpc/arcmin = 1.72 Mpc/degree
Scale (Virgo + GA + Shapley)	: 482 pc/arcsec = 0.482 kpc/arcsec = 28.90 kpc/arcmin = 1.73 Mpc/degree

To Search for Nearby Objects (Physical Companions): Enter Your Preferred Values and click on "Submit Environment Search" button

Search for Objects within +/- arcmin where 100 kpc = 3.460 arcmin

and Selected Redshift, defined by the Velocity Range: from to km/sec where

V(Heliocentric) = 6660 km/sec

Cosmology-Corrected Quantities [$H_0 = 73.00$ km/sec/Mpc, $\Omega_{\text{matter}} = 0.27$, $\Omega_{\text{vacuum}} = 0.73$]

[Redshift 0.023154 as corrected to the Reference Frame defined by the 3K Microwave Background Radiation]

Luminosity Distance	: 96.8 Mpc	(m-M) = 34.93 mag
Angular-Size Distance	: 92.5 Mpc	(m-M) = 34.83 mag
Co-Moving Radial Distance	: 94.6 Mpc	(m-M) = 34.88 mag
Co-Moving Tangential Dist.	: 94.6 Mpc	(m-M) = 34.88 mag
Co-Moving Volume	: 0.00355 Gpc ³	
Light Travel-Time	: 0.305 Gyr	
Age at Redshift 0.023154	: 12.994 Gyr	
Age of Universe	: 13.299 Gyr	
Scale (Cosmology Corrected)	: 448 pc/arcsec = 0.448 kpc/arcsec = 26.91 kpc/arcmin = 1.61 Mpc/degree	
Surface Brightness Dimming	: Flux Density per Unit Area = 0.91251; Magnitude per Unit Area = 0.09941 mag	

To change Cosmological Input Parameters for Derived Quantities: Enter Your Preferred Values and click on "Submit Changed Hubble Parameters for this object" button

H_0 Ω_{matter} Ω_{vacuum}

Correct Redshift To the Reference Frame defined by: as Input for Calculation of the Distances and Cosmology-Corrected Quantities

QUICK-LOOK PHOTOMETRY and LUMINOSITIES for MRK 0447 ([Back to INDEX](#))

The brightest flux in each of the following spectral regions, when available:

Gamma-Ray ($\nu > 2\text{E}19$ Hz); X-Ray ($2\text{E}19$ Hz $> \nu > 2\text{E}16$ Hz); Ultraviolet ($2\text{E}16$ Hz $> \nu > 9\text{E}14$ Hz); Visual ($9\text{E}14$ Hz $> \nu > 3\text{E}14$ Hz); Near-Infrared ($3\text{E}14$ Hz $> \nu > 6\text{E}13$ Hz); Mid-Infrared ($6\text{E}13$ Hz $> \nu > 7.5\text{E}12$ Hz); Far-Infrared ($7.5\text{E}12$ Hz $> \nu > 1\text{E}12$ Hz); Sub-Millimeter ($1\text{E}12$ Hz $> \nu > 3\text{E}11$ Hz); Millimeter ($3\text{E}11$ Hz $> \nu > 3\text{E}10$ Hz); Radio ($3\text{E}10$ Hz $> \nu$).

Spectral Region	Band	Apparent Mag or Flux	Refcode	Absolute Mag or vL _v [W]	vL _v [L _⊙ (Bolometric)]
Ultraviolet	NUV (GALEX) AB	17.3234 +/- 0.0206068 mag	2012GASC.C...0000S	-17.61 +/- 0.50 [mag]	1.61E+09 +/- 3.23E+08
Visual	z (SDSS CModel) AB	14.701 asinh mag	2007SDSS6.C...0000:	-20.23 [mag]	4.46E+09
Near-Infrared	H_total (2MASS)	12.926 +/- 0.061 mag	20032MASX.C.....:	-22.00 +/- 0.50 [mag]	3.67E+09 +/- 7.65E+08
Mid-Infrared	IRAS 12 microns	<8.894E-02 Jy	1990IRASE.C...0000M	< 2.49E+36 [W]	< 6.48E+09
Far-Infrared	IRAS 100 microns	5.326E-01 +/- 23 % Jy	1990IRASE.C...0000M	1.79E+36 +/- 5.45E+35 [W]	4.67E+09 +/- 1.42E+09
Radio	1.4GHz	3.7 +/- 0.5 milliJy	1998AJ....115.1693C	5.81E+30 +/- 1.40E+30 [W]	1.51E+04 +/- 3.65E+03

NOTE: The above quantities are derived using a Distance Modulus of 34.93 mag corresponding to a Luminosity Distance of 96.8 Mpc [assuming 10%uncertainty] using the [Cosmology-Corrected Quantities](#).
The quantities quoted above have not necessarily been corrected for foreground extinction, and no K-Corrections have been applied.

View details and SED for [35 Photometric data point\(s\)](#) available in NED.

NEW QUICK-LOOK ANGULAR & PHYSICAL DIAMETERS for MRK 0447 ([Back to INDEX](#))

The largest diameters in the Visual and Near-Infrared spectral regions, when available:

Passband	Apparent Major Axis (2a) [arcsec]	Apparent Minor Axis (2b) [arcsec]	PA [degrees] (J2000.0)	Reference Level	Refcode	Physical Major Axis (2a) [kpc]	Physical Minor Axis (2b) [kpc]
r (SDSS Isophotal)	26.53	23.35	127	25.0 mag arcsec ⁻²	2007SDSS6.C...0000:	12.78	11.25
K_s (2MASS "total")	27.90	20.65	145	Diameter for "total" magnitude 20032MASX.C.....:	20032MASX.C.....:	13.44	9.94

NOTE: At z <= 0.5, physical diameters are derived using a [Scale at the Hubble Flow Distance \(Virgo + GA + Shapley\)](#) of 0.482 kpc/arcsec.
The quantities quoted above have not necessarily been corrected for foreground extinction.

View details for [8 Diameter data point\(s\)](#) available in NED.

EXTERNAL ARCHIVES AND SERVICES for MRK 0447 [Help](#) ([Back to INDEX](#))

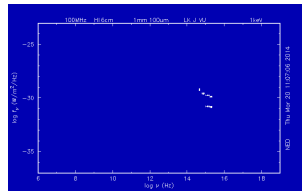
Data Related Directly to Object Names	Site/Service
Query SIMBAD by primary NED object name -- MRK 0447	SIMBAD (CDS, Strasbourg, France)
FBS Catalogue of Markarian Galaxies -- MRK 0447	VizieR Catalog Query (U.S. mirror, CfA/Harvard)
2MASS Extended Source Images (JHKs) -- 2MASX J12581002+2420555	NASA/IPAC Infrared Science Archive (IRSA)
Query SDSS Sky Server -- SDSS J125809.99+242056.0	SDSS Sky Server
IRAS Faint Source Catalog -- IRAS F12557+2436	VizieR Catalog Query (U.S. mirror, CfA/Harvard)
Catalogue of Principal Galaxies -- PGC 044418	VizieR Catalog Query (U.S. mirror, CfA/Harvard)
Retrieve mean data from LEDA -- PGC 044418	The Lyon/Meudon Extragalactic Database (LEDA)
<div>Retrieve catalog data for NVSS J125809+242051</div>	NRAO/VLA Sky Survey (NVSS)
Query GALEX (NUV/FUV) Mission Archive (6' search radius) -- MRK 0447	GALEX Mission Data Archive at MAST
Explore IRSA resources with RADAR (10" search radius) -- MRK 0447	NASA/IPAC Infrared Science Archive (IRSA)
General Archive Resources -- All queries centered at 12h58m10.0s, +24d20m56s (J2000)	Site/Service
Query Optical and UV Mission Archives (Default search radius)	Multimission Archive at STScI (MAST)
Query High Energy Mission Archives (Default search radius)	HEASARC (NASA/GSFC)
Explore resources with DataScope (15' search radius)	HEASARC (NASA/GSFC)
Query SDSS Sky Server -- MRK 0447	SDSS Sky Server
Query IRSA for WISE images (10' search radius)	NASA/IPAC Infrared Science Archive (IRSA)
<div>Retrieve 2MASS Atlas Images Band(s): Ks Size: 2'</div>	NASA/IPAC Infrared Science Archive (IRSA)
<div>Retrieve IRAS ISSA Images Band(s): 60um Size: 30'</div>	NASA/IPAC Infrared Science Archive (IRSA)
<div>1-D Coadd of IRAS Scans (ADDSCAN/SCANPI)</div>	NASA/IPAC Infrared Science Archive (IRSA)
<div>Retrieve NVSS Image Size: 15' <input checked="" type="radio"/> Contours (PS) <input type="radio"/> JPEG <input type="radio"/> FITS File</div>	NRAO/VLA Sky Survey (NVSS)
<div>Retrieve FIRST Image Size: 15' <input checked="" type="radio"/> GIF <input type="radio"/> FITS File</div>	Faint Images of the Radio Sky at Twenty-Centimeters
<div>NRAO Archive 1 arcminute search radius (EVLA, VLA and VLBA)</div>	The NRAO Data Archive System

Object No. 3 - SDSS J125845.57+241402.1

Essential Data (jump to sub-section of this query report):

External Services

Images



6 Photometric data point(s) and SED

4 Association(s)

N/A

Object Names	Type	Object Names	Type
SDSS J125845.57+241402.1	G	ASK 667571.0	G
GALEXASC J125845.61+241402.8	UvS	MAPS-NGP O_379_0244475	G
AGC 732415	RadioS	NGP9 F379-0279722	G

Reference	Frame	Longitude (degrees)	Latitude (degrees)	RA	DEC	Uncertainty Semimajor	Ellipse Semiminor	(arcsec) PA(deg)
Equatorial	(B1950.0)	194.080333	24.503722	12h56m19.28s	+24d30m13.4s	2.50E+00	2.50E+00	0
Equatorial	(J2000.0)	194.689677	24.234086	12h58m45.52s	+24d14m02.7s	2.50E+00	2.50E+00	0
Ecliptic	(B1950.0)	182.469970	27.942705			2.50E+00	2.50E+00	0
Ecliptic	(J2000.0)	183.171928	27.941873			2.50E+00	2.50E+00	0
Galactic		333.012113	86.668943			2.50E+00	2.50E+00	0
SuperGalactic		93.233134	7.207715			2.50E+00	2.50E+00	0

1 Position data point(s)

N/A

N/A

NEW Galactic Extinction from the [Schlafly & Finkbeiner 2011, Appendix; 2011ApJ...737..103S \(SF11\)](#) recalibration of the [Schlegel, Finkbeiner & Davis 1998, Appendix B; 1998ApJ...500..525S \(SFD98\)](#) infrared-based dust map. The map is based on dust emission from COBE/DIRBE and IRAS/ISSA; the recalibration assumes a [Fitzpatrick \(1999PASP...111...63F\)](#) reddening law with $R_V = 3.1$ and different source spectrum than SFD98.

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Filter [μm]	U (0.35)	B (0.43)	V (0.54)	R (0.64)	I (0.80)	u (0.36)	g (0.47)	r (0.62)	i (0.75)	z (0.89)	J (1.25)	H (1.66)	K (2.19)	L' (3.78)
A _λ [mag]	0.063	0.052	0.040	0.031	0.022	0.061	0.048	0.033	0.025	0.018	0.010	0.006	0.004	0.002

[Show/Hide A_λ magnitudes in all 88 photometric bands based on SF11](#)

For completeness, we include the original SFD98 values:

	L a n d o l t					S D S S					U K I R T			
Filter [μm]	U (0.34)	B (0.44)	V (0.54)	R (0.65)	I (0.81)	u (0.35)	g (0.49)	r (0.63)	i (0.78)	z (0.93)	J (1.27)	H (1.67)	K (2.22)	L' (3.81)
A _λ [mag]	0.078	0.062	0.047	0.038	0.028	0.074	0.054	0.039	0.030	0.021	0.013	0.008	0.005	0.002

Galactic Extinction based on H I Column Densities and Galaxy Counts
([Burststein & Heiles; 1982AJ.....87.1165B](#)) assuming R_V = 3.1:

A_B = 0.070 mag

See [Notes on Galactic Extinction](#) for important caveats.

BASIC DATA for SDSS J125845.57+241402.1 ([Back to INDEX](#))

Helio. Radial Velocity : 6803 +/- 93 km/s
Redshift : 0.022692 +/- 0.000310 [2011AJ....142..170H](#)
Major Diameter (arcmin) : 0.27
Minor Diameter (arcmin) : 0.21
Magnitude and Filter : 17.90
Classifications :

NOTE: This information is indicative only. With the exception of the redshift they are unreferenced and highly inhomogeneous as to their origin. The Radial Velocity (when available) is computed from the listed redshift. The remaining values are designed to orient the user with a quick-look, overall assessment of the general properties of the object in question. They are not averages nor are they standardized in any way.

Additional detailed measurements with references are also available by clicking below:

[1 Redshift data point\(s\)](#) [6 photometric data point\(s\)](#)

QUANTITIES DERIVED FROM REDSHIFT for SDSS J125845.57+241402.1 ([Details](#))([Back to INDEX](#))

Calculated and Corrected Velocities

V (Heliocentric) : 6803 +/- 93 km/s [2011AJ....142..170H](#)
V (Kinematic LSR) : 6811 +/- 93 km/s [1986MNRAS.221.1023K](#)
V (Galactocentric GSR) : 6804 +/- 93 km/s [1991RC3.9.C...0000d](#)
V (Local Group) : 6772 +/- 93 km/s [1996AJ....111..794K](#)
V (3K CMB) : 7084 +/- 95 km/s [1996ApJ...473..576F](#)
V (Virgo Infall only) : 6999 +/- 94 km/s [2000ApJ...529..786M](#)
V (Virgo + GA only) : 7350 +/- 97 km/s [2000ApJ...529..786M](#)
V (Virgo + GA + Shapley) : 7396 +/- 98 km/s [2000ApJ...529..786M](#)

Hubble Flow Distance and Distance Modulus (where H₀ = 73.0 +/- 5 km/sec/Mpc)

D (Galactocentric GSR) : 93.2 +/- 6.6 Mpc (m-M) = 34.85 +/- 0.15 mag
D (Local Group) : 92.8 +/- 6.6 Mpc (m-M) = 34.84 +/- 0.15 mag
D (3K CMB) : 97.0 +/- 6.9 Mpc (m-M) = 34.93 +/- 0.15 mag
D (Virgo Infall only) : 95.9 +/- 6.8 Mpc (m-M) = 34.91 +/- 0.15 mag
D (Virgo + GA only) : 100.7 +/- 7.2 Mpc (m-M) = 35.01 +/- 0.15 mag
D (Virgo + GA + Shapley) : 101.3 +/- 7.2 Mpc (m-M) = 35.03 +/- 0.15 mag

Scale at Hubble Flow Distances

Scale (Galactocentric GSR) : 452 pc/arcsec = 0.452 kpc/arcsec = 27.11 kpc/arcmin = 1.63 Mpc/degree
Scale (Local Group) : 450 pc/arcsec = 0.450 kpc/arcsec = 26.98 kpc/arcmin = 1.62 Mpc/degree
Scale (3K CMB) : 470 pc/arcsec = 0.470 kpc/arcsec = 28.23 kpc/arcmin = 1.69 Mpc/degree
Scale (Virgo Infall only) : 465 pc/arcsec = 0.465 kpc/arcsec = 27.89 kpc/arcmin = 1.67 Mpc/degree
Scale (Virgo + GA only) : 488 pc/arcsec = 0.488 kpc/arcsec = 29.29 kpc/arcmin = 1.76 Mpc/degree
Scale(Virgo + GA + Shapley): 491 pc/arcsec = 0.491 kpc/arcsec = 29.47 kpc/arcmin = 1.77 Mpc/degree

To Search for Nearby Objects (Physical Companions): Enter Your Preferred Values and click on "Submit Environment Search" button

Search for Objects within +/- arcmin where 100 kpc = 3.393 arcmin

and Selected Redshift, defined by the Velocity Range: from to km/sec where

V(Heliocentric) = 6803 km/sec

Cosmology-Corrected Quantities [H₀ = 73.00 km/sec/Mpc, Ω_{matter} = 0.27, Ω_{vacuum} = 0.73]
[Redshift 0.023631 as corrected to the Reference Frame defined by the 3K Microwave Background Radiation]

Luminosity Distance : 98.9 Mpc (m-M) = 34.98 mag
Angular-Size Distance : 94.4 Mpc (m-M) = 34.87 mag
Co-Moving Radial Distance : 96.6 Mpc (m-M) = 34.92 mag
Co-Moving Tangential Dist. : 96.6 Mpc (m-M) = 34.92 mag
Co-Moving Volume : 0.00377 Gpc³
Light Travel-Time : 0.311 Gyr
Age at Redshift 0.023631 : 12.988 Gyr
Age of Universe : 13.299 Gyr
Scale (Cosmology Corrected): 457 pc/arcsec = 0.457 kpc/arcsec = 27.45 kpc/arcmin = 1.65 Mpc/degree
Surface Brightness Dimming : Flux Density per Unit Area = 0.91081; Magnitude per Unit Area = 0.1014 mag

To change Cosmological Input Parameters for Derived Quantities: Enter Your Preferred Values and click on "Submit Changed Hubble Parameters for this object" button

H₀ 73.0

Ω_{matter} 0.27

Ω_{vacuum} 0.73

NED Default/WMAP (Three-Year)

WMAP (Five-Year) Parameters

Correct Redshift To the Reference Frame defined by: 3K CMB as Input for Calculation of the Distances and Cosmology-Corrected Quantities

Submit Changed Hubble Parameters for this object

QUICK-LOOK PHOTOMETRY and LUMINOSITIES for SDSS J125845.57+241402.1 (Back to INDEX)

The brightest flux in each of the following spectral regions, when available:
Gamma-Ray (ν > 2E19 Hz); X-Ray (2E19 Hz > ν > 2E16 Hz); Ultraviolet (2E16 Hz > ν > 9E14 Hz); Visual (9E14 Hz > ν > 3E14 Hz); Near-Infrared (3E14 Hz > ν > 6E13 Hz); Mid-Infrared (6E13 Hz > ν > 7.5E12 Hz); Far-Infrared (7.5E12 Hz > ν > 1E12 Hz); Sub-Millimeter (1E12 Hz > ν > 3E11 Hz); Millimeter (3E11 Hz > ν > 3E10 Hz); Radio (3E10 Hz > ν).

Spectral Region	Band	Apparent Mag or Flux	Refcode	Absolute Mag or vL _ν [W]	vL _ν [L _⊙ (Bolometric)]
Ultraviolet	NUV (GALEX) AB	18.2571 +/- 0.0374440 mag	2012GASC...C...0000S	-16.72 +/- 0.50 [mag]	7.10E+08 +/- 1.44E+08
Visual	m_23.5 (103a-E)	16.76 +/- 0.21 mag	1995AJ....110.2009O	-18.22 +/- 0.54 [mag]	8.53E+08 +/- 2.50E+08

NOTE: The above quantities are derived using a Distance Modulus of 34.98 mag corresponding to a Luminosity Distance of 98.9 Mpc [assuming 10%uncertainty] using the [Cosmology-Corrected Quantities](#).
The quantities quoted above have not necessarily been corrected for foreground extinction, and no K-Corrections have been applied.

View details and SED for [6 Photometric data point\(s\)](#) available in NED.

EXTERNAL ARCHIVES AND SERVICES for SDSS J125845.57+241402.1 [Help](#) (Back to INDEX)

Data Related Directly to Object Names	Site/Service
Query SIMBAD by primary NED object name -- SDSS J125845.57+241402.1	SIMBAD (CDS, Strasbourg, France)
Query SDSS Sky Server -- SDSS J125845.57+241402.1	SDSS Sky Server
Query GALEX (NUV/FUV) Mission Archive (6' search radius) -- SDSS J125845.57+241402.1	GALEX Mission Data Archive at MAST
Explore IRSA resources with RADAR (10" search radius) -- SDSS J125845.57+241402.1	NASA/IPAC Infrared Science Archive (IRSA)
General Archive Resources -- All queries centered at 12h58m45.5s, +24d14m03s (J2000)	Site/Service
Query Optical and UV Mission Archives (Default search radius)	Multimission Archive at STScI (MAST)
Query High Energy Mission Archives (Default search radius)	HEASARC (NASA/GSFC)
Explore resources with DataScope (15' search radius)	HEASARC (NASA/GSFC)
Query SDSS Sky Server -- SDSS J125845.57+241402.1	SDSS Sky Server
Query IRSA for WISE images (10' search radius)	NASA/IPAC Infrared Science Archive (IRSA)
<div>Retrieve 2MASS Atlas Images Band(s): <div>Ks</div> Size: <div>2'</div></div>	NASA/IPAC Infrared Science Archive (IRSA)
<div>Retrieve IRAS ISSA Images Band(s): <div>60um</div> Size: <div>30'</div></div>	NASA/IPAC Infrared Science Archive (IRSA)
<div>1-D Coadd of IRAS Scans (ADDSCAN/SCANPI)</div>	NASA/IPAC Infrared Science Archive (IRSA)
<div>Retrieve NVSS Image Size: <div>15'</div> <div><input checked="" type="radio"/> Contours (PS) <input type="radio"/> JPEG <input type="radio"/> FITS File</div></div>	NRAO/VLA Sky Survey (NVSS)
<div>Retrieve FIRST Image Size: <div>15'</div> <div><input checked="" type="radio"/> GIF <input type="radio"/> FITS File</div></div>	Faint Images of the Radio Sky at Twenty-Centimeters
<div>NRAO Archive 1 arcminute search radius (EVLA, VLA and VLBA)</div>	The NRAO Data Archive System

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