What is NED?

NED is a comprehensive database of multi-wavelength data for extragalactic objects, providing a systematic, ongoing fusion of information integrated from hundreds of large sky surveys and tens of thousands of research publications. The contents and services span the entire observed spectrum from gamma rays through radio frequencies.

As new observations are published, they are crossidentified or statistically associated with previous data and integrated into a unified database to simplify queries and retrieval. Seamless connectivity to data in NASA's astrophysics mission archives (IRSA, HEASARC, MAST), ADS, and other data centers around the world is also provided.

Objects can be queried By Name, Near Name or Position (cone search), By Reference, and By Author. Galaxy samples can be constructed By Parameter constraints on Redshift, Sky Area, Object Types, Survey Names, or Flux Density (Magnitude), or by filtering galaxy Classifications and Attributes.

The LEVEL 5 Knowledgebase augments review articles in extragalactic astrophysics and cosmology with object names and graphical content within the articles linked directly to relevant database queries.

Current Holdings

177 million objects

190 million multiwavelength source cross-IDs

1.4 million object associations

4.0 million objects with redshifts

1.75 billion photometric measurements with SEDs

609 million diameter measurements

25.9 million objects linked to 84 thousand references

2.7 million images, maps and external links

478 thousand spectra

72 thousand object notes

209 thousand objects with detailed attributes

64 thousand redshiftindependent distances for 13 thousand objects

NED Team & Contributors

Kay Baker Ben Chan Tracy Chen Rick Ebert Dario Fadda Cren Frayer Cheryl La Gue George Helou Jeff Jacobson Tak Lo
Barry Madore
Joseph Mazzarella
Patrick Ogle
Olga Pevunova
Marion Schmitz
lan Steer
Scott Terek
IPAC Support Group



Cartwheel Galaxy

Contact Us

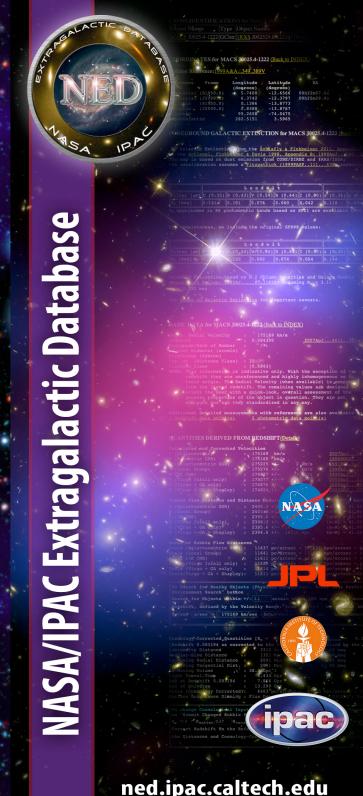
To submit questions or suggestions, to contribute data sets such as images or spectra, or to request access to the Proto site to help beta test new functionalities, please send email to ned@ipac.caltech.edu.

California Institute of Technology Mail Stop 100-22 770 South Wilson Avenue Pasadena, CA 91125 Phone: (626) 395-1873



Designed January 2013 by the IPAC Communications & Education and NED teams





What's new in NED?

Featured Content Additions

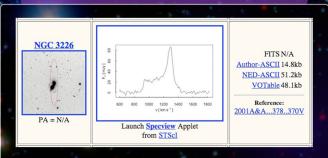
6.2 million objects in the Small Magellanic Cloud with 22 million photometric measurements merged into SEDs from three catalogs (Zaritsky et al. 2002, AJ, 123, 855; Massey 2002, ApJS, 141, 81; Gordon et al. 2011, AJ, 142, 102)

Over 56,000 objects from "The Spitzer IRAC/MUSYC Public Legacy Survey: Observations, Reduction, and Catalog" (Damen et al. 2011, ApJ, 727, 1)

17,400 sources from the "Chandra ACIS Survey of X-ray Point Sources in 383 Nearby Galaxies. I. The Source Catalog" (Liu 2011, ApJS, 192, 10)

Photometry for 91,475 sources from "Spitzer MIPS 24 and 70 micron Imaging Near the South Ecliptic Pole: Maps and Source Catalogs" (Scott et al. 2010, ApJS, 191, 212)

Hundreds of New Spectra



Spectra from "HI Observations of Loose Galaxy Groups I. Data and Global Properties" (van Driel et al. 2001, A&A, 378, 370).

LEVEL 5 Knowledgebase

LEVEL 5 enhances review articles in extragalactic astrophysics and cosmology with links from object names and graphical content to related database queries. Recent highlights include:

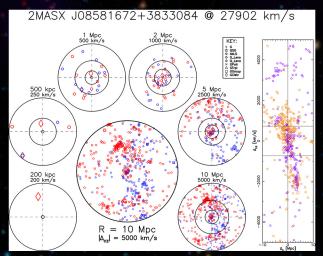
"The First Stars" (Glover 2012, to appear in "The First Galaxies -Theoretical Predictions and Observational Clues", eds. V. Bromm, B. Mobasher, T. Wiklind; arXiv.org:1209.2509)



"Galaxy Bulges and Elliptical Galaxies - Lecture Notes" (Dimitri A. Gadotti 2011, notes to the PhD School of Astrophysics "F. Lucchin", held in Erice, Italy, Sept. 2011; eds. G. Bono, M. Zoccali; arXiv:1208.2295.) Figure 10 is shown above.

Explore Galaxy Environments

A new prototype service enables exploration of galaxy environments for objects with available spectroscopic redshifts in NED. Features include counts in concentric shells (0.5, 1, 2, 5, and 10 Mpc radii) around the target object, color coded velocity offsets, recentering, graphics, and the ability to search for objects based on environmental parameters.



Example: query a 2MASS source and discover that it is a member of galaxy cluster Abell 724.

Best Practices for Publishing Data

A new reference guide (M. Schmitz et al. 2013) is available on the website designed to assist authors with the presentation of data, thereby facilitating their efficient and accurate integration into NED.

RADIO MICROWAVE INFRARED VISIBLE ULTRAVIOLET X-RAY GAMMA RAY