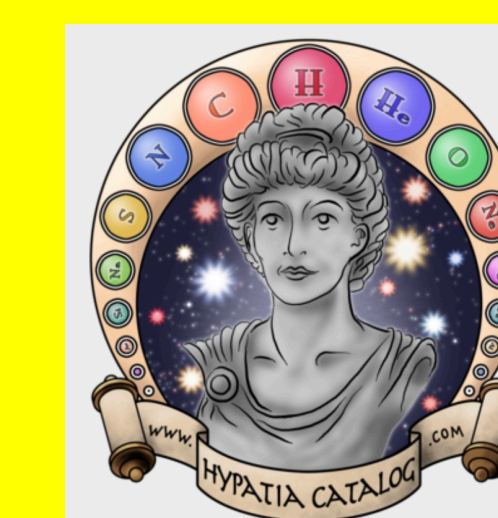
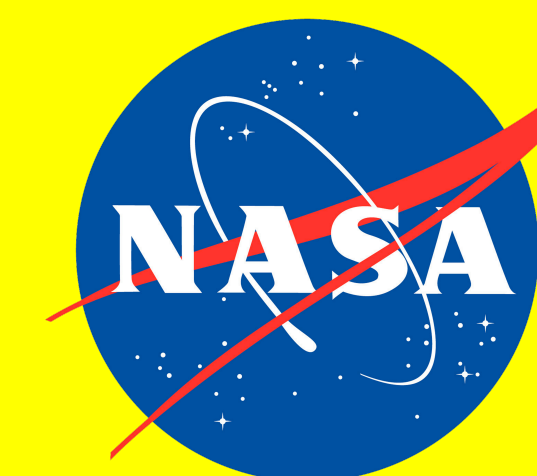




An Open Access, Open Source Stellar Database

by Angelle Tanner (MSU), Demitri Muna (UTSA)

Sponsored by



Tell us your favorite star and we will add it!

The Starchive is an open source, open access database and web app of stellar properties. Current samples include near stars, young stars, brown dwarfs and white dwarfs. Users will be able to upload new measurements and download csv, latex or text tables. All plots will be adaptable and suitable for publication. Newly uploaded datasets will be advertised on the main page and in a monthly newsletter to encourage contributions.

Questioning your life choices after it took you eight hours to make an HR diagram for a talk you are giving to your kid's ballet class?

Kicking yourself because you wasted 20 minutes of telescope time getting a vsini for a star and then finding that vsini in a publication?

Eyes crossed from combing through paper after paper to supplement your sample?

Pulling your hair out vetting target lists?

Never fear, the Starchive is here!

WHO IS IN THE STARCHIVE?
(for now ...)

WHAT IS IN THE STARCHIVE?

- Photometry
- Radial velocities
- RA/Dec
- Proper Motion & Parallax
- Vsini and/or Prot
- Metallicity
- Activity (R_{HK} , S)
- Infrared Excess
- Multiplicity
- Stellar Radius
- Model Radius
- Age
- Distance
- Luminosity
- Mass
- Spectral Type
- Transit times
- Planet Orbits
- Insolation Zone
- Disk properties

Message center: Good day!

Stellar Samples

- Nearest (30 pc) 8634
- Young Stars 4028
- Stars with Disks 205
- Stars with Planets 2287
- White Dwarfs 405
- Brown Dwarfs 3785

If none checked then Everything.

Binary Types

- Eclipsing
- Spectroscopic
- Astrometric
- Visual

Missions

- TESS
- Kepler
- Roman
- JWST

Preset Plots

- Nearest Stars in 3-D
- Nearest (10pc) Stars HR diagram
- Brightest Stars in 3-D
- Brightest Stars HR diagram
- Habitable Planets
- Observatory Map

Radius Search

Coordinate types: Equatorial ICRS (RA/Dec) default
 Ecliptic (λ/β)
 Galactic (l/b)

Epoch: J2000 default
 B1950
 Any Epoch

Formats: hh:mm:ss.s +dd:mm:ss.s, hh mm ss.s +dd mm ss.s, 00h00m00s.+00d00m00s, 000.000+000.00

Enter a star name or coordinate

Name or Coords Radius Arcminutes

Submit

Filter Search

Parameter(s)	Unit	Min Value	Max Value
Select a Parameter		20	1
Select another		Min	Max
Select another		Min	Max

Submit

Reference Search

Single Reference Search
 Accepted format: 2018MNRAS.474.5523S

Name or Coordinates Submit

Multi Reference Search
 Choose file... Browse Submit

Statistics:

Spty	Class
A: 282	I: 652
F: 907	II: 1
G: 1656	III: 1
K: 2232	IV: 1
M: 6893	V: 5772
L: 1607	VI: 1
T: 826	WD: 1
Y: 33	sd: 1

Great for teachers!

HOW DO I FIND THE STARS?

- ★ Single target search
- ★ Reference search
- ★ Batch mode search
- ★ Parameter range/filter search
- ★ Radius search
- ★ API

HOW DO I PLAY WITH THE DATA?

- ★ Download Excel/CSV
- ★ Download Text table
- ★ Download tarballs of selected spectra, images or time series
- ★ Versatile, publication quality plotting tools
- ★ Live image viewers including Aladin lite and js9

RESULTS PAGE FOR A SINGLE STAR QUERY

GJ 111 SED Spectra Light Curves AD Images

Right Ascension: 02 45 06.55 +0.56 2000 2018/GC1345..._00
 Declination: -18 34 00.70 +0.56 2000 2018/GC1345..._00

Observer Info Finder Charts

Current Location: Starkville, MS, USA
 Location: Apache Point Observatory

Current Date: 26-02-2021
 Change Date: 05-mm-yyyy

Moon phase: full-moon
 Sun Set Time: 04:37:32 Local Sun Rise Time: 16:02:40 Local
 Moon Set Time: 02:14:58 Local Moon Rise Time: 16:02:48 Local

Star Set Time: 21:32:57 Local Star Rise Time: 08:19:40 Local
 Current Airmass: -1.93

Aladin lite widget

Adaptive SED

Quick Look SED Viewer SED Tool

Parameter(s) Unit Min Value Max Value

Select a Parameter 20 1

Select another Min Max Submit

Select another Min Max

Hierarchy tree for multiple systems!

RESULTS PAGE FOR A MULTI STAR QUERY

Search criteria: Radius search with

Use cursor to select sets of points. Table will display those points.

Change axes:
 Plot on X-axis
 Plot on Y-axis

More Plotting tools
 Histogram
 Scatter
 HR Diagram
 3-D Position Map
 3-D Scatter
 3-D Histogram
 Multi Plot select
 Sky Projection Map

Click to add columns
 Apply Dynamics Stellar Parameters Multiplicity Disk Parameters Brown Dwarf Parameters Planet Parameters Habitable

Optical Photometry Infrared Photometry Ultraviolet Photometry

Name	PK	Samples	Data	RA	Dec	Spty	PM RA	PM Dec
ZRE J0407+380	-985	30pc	Spec,Time,2-D	04 07 34.56	+38 04 27.66	G9 V	174.51	-224.1
ASCC 1138799	-2006	30pc	Spec,Time,2-D	13 23 40.85	+02 43 34.11	K2 V	5.83	202.1
BD-01 2784	-1976	30pc	Spec,Time,2-D	13 12 43.78	-02 15 54.14	K1 V	-138.66	10.57
Galax DR1 116037406313944960	-14344	30pc	Spec,Time,2-D	02 55 38.89	+26 52 25.26	K2 IV	264.78	-193.1
GJ 141	-910	30pc	Spec,Time,2-D	03 24 59.49	-05 22 1.43	K4 V	-229.29	-769.1
GJ 3651	-1765	Planets 30pc	Spec,Time,2-D	11 14 33.16	+25 42 37.38	K1 V	-107.50	48.70

Quicklook active plot based on search parameters

Sortable table with adaptive columns and downloading options

If available, this page also has spectra, light curves and high contrast images

Adjustable airmass plot and rotatable finder charts

Comments? Requests? Wanna help?

contact: angelle.tanner@gmail.com

Testimonials*

"It's pretty" - UCSD grad student

"Without the Starchive, my degree would have taken 10 years to complete instead of just seven" - ASU PhD now working at Starbucks

"Thanks to the Starchive, my advisor looks up when I show them a new plot!" - Ohio State 2nd year

"The Starchive helped me get tenure!" - MSU associate professor

* Testimonials totally made up