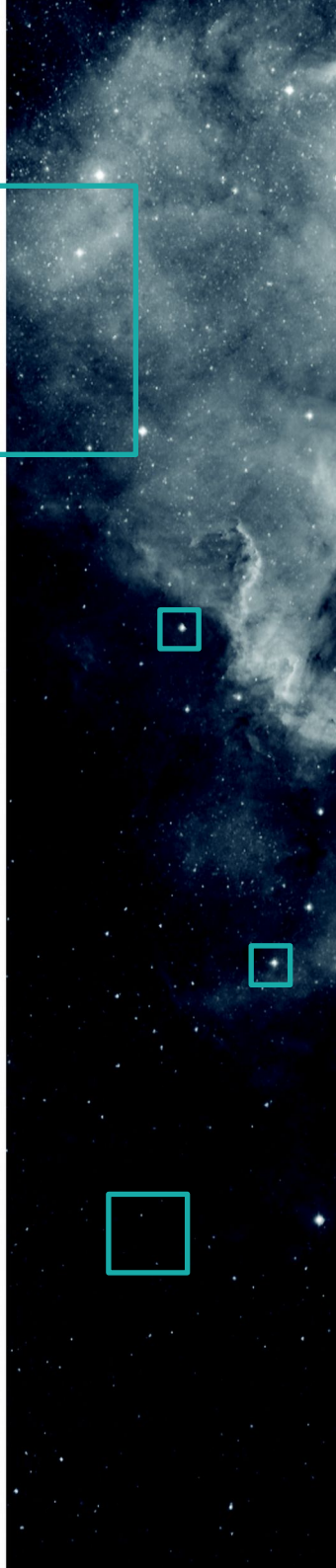


Valorisation des données de la recherche dans les services du CDS

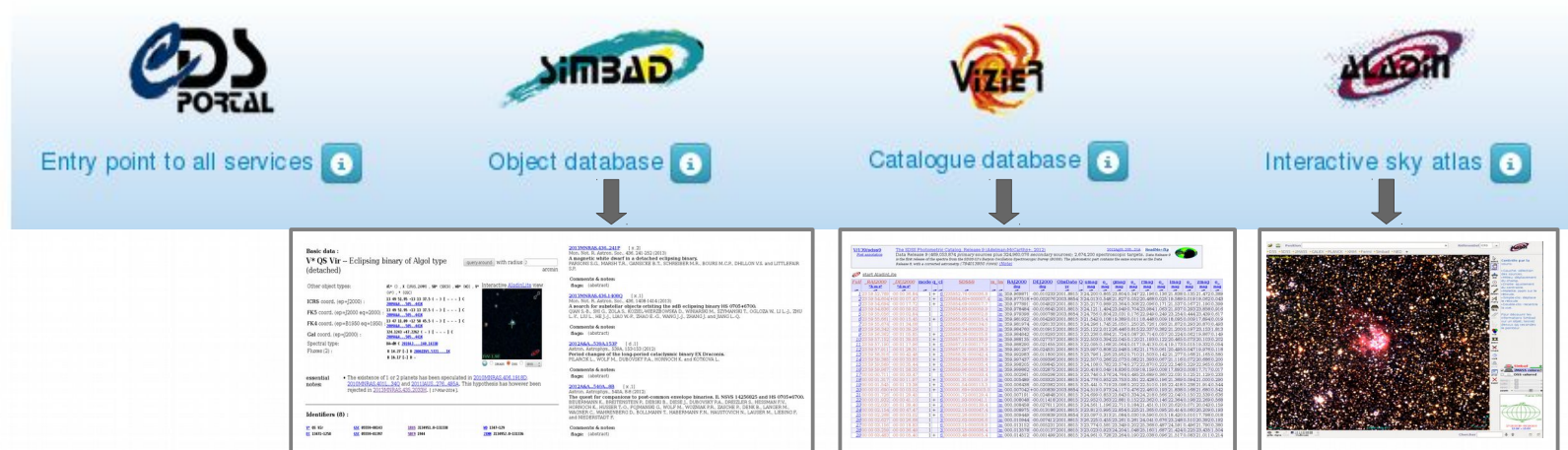
Le métier de documentaliste



Evelyne Son



□ Les services du CDS



la base de données de référence mondiale pour l'identification, la nomenclature et la bibliographie des objets astronomiques.



la collection des catalogues astronomiques et des tables publiées dans les journaux de la discipline mais aussi les données associées.



l'atlas interactif du ciel : découverte, visualisation et manipulation de données.



le dictionnaire de nomenclature des objets célestes.

→ un million de requêtes par jour sur l'ensemble des services.

□ CDS : ses défis

Notre challenge : gérer l'augmentation des données tout en assurant la qualité des données distribuées

Producteurs de données

Augmentation
continue du **volume** à
traiter



Utilisateurs

Astronomes, softwares
(VO), pipelines

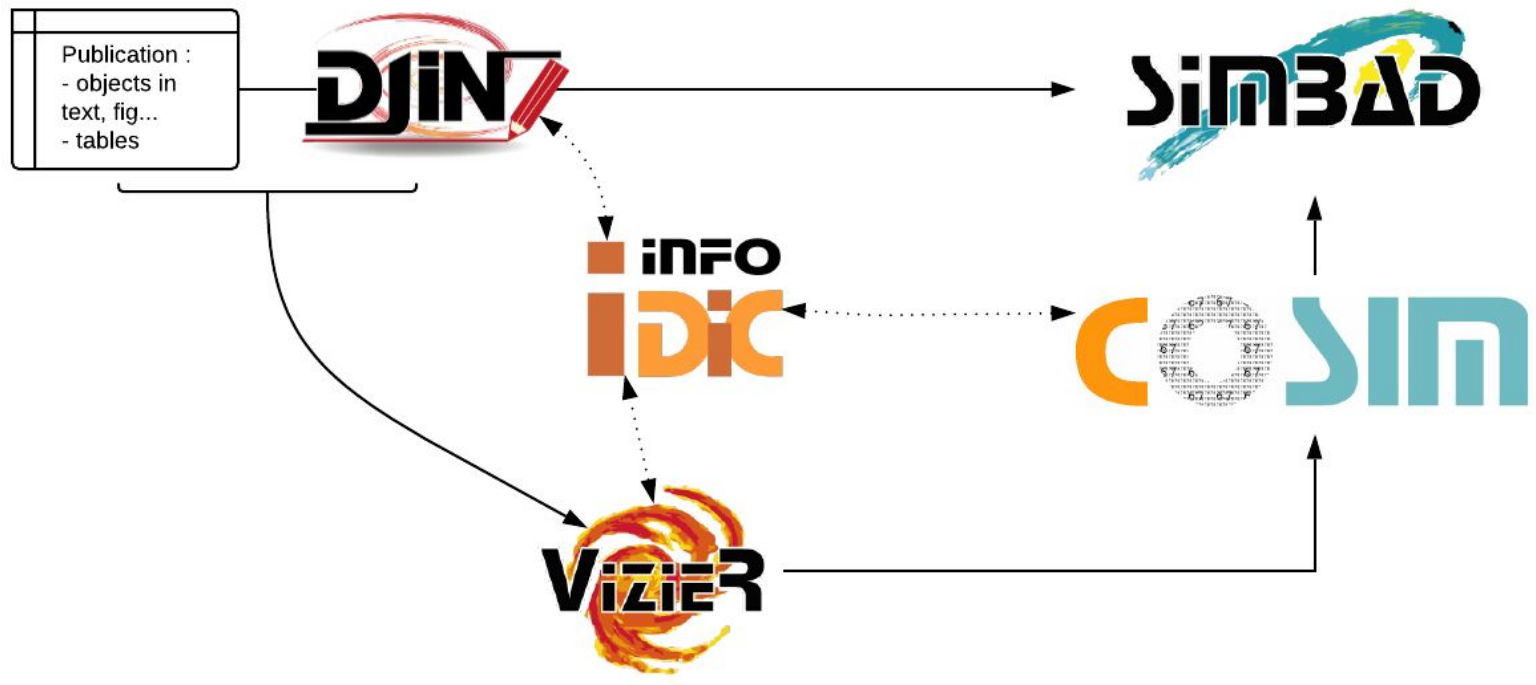
Exigence sur la **qualité**

Challenge possible :

- Grâce à l'évolution des systèmes d'information
- Grâce aux compétences internes (en perpétuelle évolution)
- Grâce aux collaborations, partenariats,

□ CDS : ses documentalistes

- Ingestion des données mais surtout
 - Valorisation des données
 - Identifier, sélectionner, décrire, vérifier, homogénéiser
 - Apporter une forte valeur ajoutée aux données (cross-identifications, ajouts des métadonnées, ...)
- ⇒ Fort impact sur la recherche
- données bien décrites, réutilisables facilement
 - services très utilisés et interopérables avec les autres données et les outils de l'OV



□ SIMBAD

- Identification des objets astronomiques dans les publications, mesures et bibliographie associées
- 10 grands journaux astronomie / astrophysique (A&A, AJ, ApJ/ApJS, MNRAS, Nature, NatAs, PASJ, PASP, Science)
+ une vingtaine d'autres
- > 11 millions d'objets astronomiques
- > 360 000 références
- > 500 000 requêtes par jour



Objets astronomiques présents dans Simbad

- Etoiles



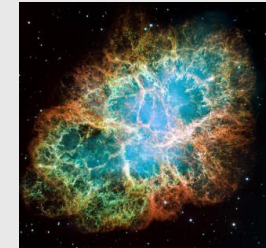
IRAS 03088+0104



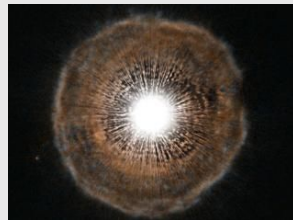
Etoiles jeunes
- dans l'amas du
Trapeze -



Etoiles évoluées
- PG 1149+057 -



Supernovae
- SN 1054 -



Etoiles variables
- U Cam -



Etoiles doubles
- bet Cyg -



Amas d'étoiles
- Les Pléiades / M80 -

- Galaxies



Andromède



Les Antennes



M 87



Amas de galaxies
- Quintette de Stephan -

- Milieu interstellaire



Nuages moléculaires
- Le nuage du Cygne -



Nuages sombres
- Barnard 59 -



Nébuleuses
- La tête de Cheval -



Nébuleuses planétaires
- NGC 7293 -



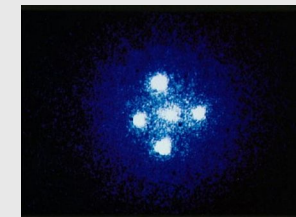
Rémanents de supernovae
- SN 1006 -



Filaments
- in IC5146 -

- Régions HII
- Régions de formation stellaire...

- Systèmes gravitationnels



Lentilles gravitationnelles
SDSSCGB 8842.3 + SDSSCGB 8842.4 / La Croix d'Einstein

- Sources : Radio, IR, Opt, UV, X, Gamma...
- Régions étendues : Orion, Cygnus, Carina...

Types d'objets

230 types d'objets dans Simbad !

I. STARS, CIRCUMSTELLAR MATTER, PLANETS

- *, *? : star (3126201)

I.1. The star zoo

I.1.1. ma*, ma?, [*] : massive star (> 8-10 Mo)

- [bC*, bC?](#) : beta Cep variable star (310)
- [sg*, sg?](#) : Evolved supergiant/hypergiant star (84)
 - [s*r, s?r](#) : Red supergiant star (3527)
 - [s*y, s?y](#) : Yellow supergiant star (222)
 - [s*b, s?b](#) : Blue supergiant star (256)
 - [AC*, AC?](#), {s*b+Pu*} : A Cyg variable star
 - [WR*, WR?](#) : Wolf-Rayet star (1085)
 - [SD*, SD?](#), {s*b+Er*} : Luminous Blue Variable (S Dor)
- [N*, N??](#) : Neutron Star (0)
 - [Psr, Ps?](#) : Pulsar (2234)

I.1.2. Y*O, Y*? : Young Stellar Object (16838)

- [pr*, pr?](#) : Pre-main sequence star (1636)
- [Or*, Or?](#) : Orion variable star (2452)
 - [FU*, FU?](#) : FU Ori variable star (33)
- [TT*, TT?](#) : T Tau-type star (1826)
- [Ae*, Ae?](#) : Herbig Ae/Be star (10)
- [out, of?](#) : Outflow (60)
 - [HH, HH?](#) : Herbig-Haro object (3299)

I.1.3. ms*, ms?, [*] : Main Sequence star

- [Be*, Be?](#) : Be star (1595)
- [a2*, a2?](#) : alpha2 CVn variable (magnetic or Ap) star (513)
- [BS*, BS?](#) : Blue Straggler star (3781)
 - [SX*, SX?](#) : SX Phe variable star (432)
- [Y*S, Y?S](#) : Yellow Straggler star
- [R*S, R?S](#) : Red Straggler star
- [gD*, gD?](#) : gamma Dor variable star (315)
- [dS*, dS?](#) : delta Sct variable star (4585)

I.1.4. ev*, ev?, [*] : Evolved star (post-MS)

- [RG*, RB?](#) ([RG? !!!](#)) : Red Giant Branch star (144816)
- [HB*, HB?](#) : Horizontal Branch Star (16604)
 - [RR*, RR?](#) : RR Lyrae (61329)
- [WV*, WV?](#) : Type II Cepheid (W Vir and BL Her variables) (230)
- [Ce*, Ce?](#) : Cepheid (11894)
 - [cC*, cC?](#) : Classical Cepheid (delta Cep) (4389)
- [c*r, c?r, \[*\]](#) : Red Clump star
- [AB*, AB?](#) : Asymptotic Giant Branch star (4959)
 - [C*, C*?](#) : Carbon star (16938)
 - [S*, S*?](#) : S star (1426)
- [OH*, OH?](#) : OH/IR star (1054)
- [RC*, RC?](#) : R CrB variable star (118)

- [RV*, RV?](#) : RV Tau variable star (161)
- [pA*, pA?](#) : Post-AGB star (236)
- [PN, PN?](#) : Planetary Nebula (8945)
- [WD*, WD?](#) : White Dwarf (16004)
 - [ZZ*, ZZ?](#) : Pulsating White Dwarf (203)

I.1.5. LM*, LM? : Low-mass star (M<1solMass) (45063)

- [BD*, BD?](#) : Brown Dwarf (M<0.08solMass) (3427)

I.1.6. su* : Sub-stellar object (0)

- [PI, PI?](#) : Extra-solar Planet (0)

I.1.7. SN*, SN? : Supernova (8005)

I.1.8. CB*, CB?, {**} : Close binary system

- [EI*, EI?](#) : Ellipsoidal variable star (403)
- [EB*, EB?](#) : Eclipsing binary (16143)
 - [Al*, Al?](#) : Eclipsing binary of Algol type (detached) (6497)
 - [bL*, bL?](#) : Eclipsing binary of beta Lyr type (semi-detached) (1530)
 - [WU*, WU?](#) : Eclipsing binary of W UMa type (contact binary) (4961)
- [SB*, SB?](#) : Spectroscopic binary (2351)
- [BY*, BY?](#) : BY Dra variable star (913)
- [RS*, RS?](#) : RS CVn variable star (472)
- [Sy*, Sy?](#) : Symbiotic star (168)
- [XB*, XB?](#) : X-ray binary (1329)
 - [LXB, LX?](#) : Low Mass X-ray binary (405)
 - [HXB, HX?](#) : High Mass X-ray binary (281)
- [CV*, CV?](#) : Cataclysmic Variable star (788)
 - [DQ*, DQ?](#) : DQ Her type (intermediate polar) (24)
 - [AM*, AM?](#) : AM Her type (polar) (82)
 - [NL*, NL?](#) : Nova-like star (49)
 - [No*, No?](#) : Nova (1657)
 - [DN*, DN?](#) : Dwarf Nova (569)

I.1.9. Various ...

- [CH*, CH?](#) : CH star (35)
- [Pe*, Pec?](#) : Peculiar star (851)

2. Stars, variability properties

- [V*, V*?](#) : Variable star (58241)
- [RI*](#) : Rapid irregular variable star
- [Ir*](#) : Irregular variable star
- [Er*](#) : Eruptive variable star
 - [F*, F?](#) : Flare star (2402)
- [Pu*, Pu?](#) : Pulsating variable star (7056)
 - [LP*, LP?](#) : Long-period variable star (63901)
 - [sr*, sr?](#) : Semi-regular variable star (19968)
 - [Mi*, Mi?](#) : Mira variable star (9989)
- [Ro*, Ro?](#) : Rotating variable star (6024)
- [EP*, EP?](#) : Star showing eclipses by its planet (30)

1.3. Stars, spectral properties

- [Em*, Em?](#) : Emission-line star (14177)

1.4. Stars, environment and kinematic properties

- [i**](#) : Star in double system (53716)
- [*iC](#) : Star in cluster (323881)
- [*iN](#) : Star in nebula (2454)
- [*iA](#) : Star in association (13251)
- [PM*](#) : High proper-motion star (97215)
- [HV*](#) : High-velocity star (224)

II. SETS OF STARS

- [**, **?](#) : Double or multiple star (20594)
- [CPM, {**}](#) : Common Proper Motion system
- [Cl*](#) : Cluster of Stars (14051)
 - [GIC, GI?](#) : Globular Cluster (14473)
 - [OpC, C*?](#) : Open Cluster (1632)
- [MGr](#) : Moving Group
 - [As*](#) : Association of Stars (4491)
 - [St*](#) : Stellar Stream

III. ISM : INTERSTELLAR MEDIUM

III.1. Clouds and Nebula

- [SFR](#) : Star forming region
- [HII](#) : HII region
- [SNR, SR?](#) : Supernova Remnant
- [GNe](#) : Nebula
 - [BNe](#) : Bright Nebula (devient Neb)
 - [RNe](#) : Reflection Nebula
- [ClD](#) : Cloud
 - [MoC](#) : Molecular Cloud
 - [DNe](#) : Dark Cloud (nebula)
 - [glb](#) : Globule (low-mass dark cloud)
 - [CGb](#) : Cometary Globule / Pillar
 - [IVC](#) : Intermediate-velocity cloud (30-90)
 - [HVC](#) : High-velocity Cloud (>90)
 - [PoC](#) : Part of Cloud
- [cor](#) : Dense core



Types d'objets

III.2. Shells, filaments, ...

- Fil : Dense filaments
- Bow : Bow shock
- bub : Bubble
- sh : (Super)giant shell

IV. GALAXIES

- G, G? : Galaxy (1576414)

IV.1. The galaxy zoo

- LSB : Low Surface Brightness Galaxy (7343)
- bCG : Blue compact Galaxy (141)
- UCD, UC?, {G} : ultra-compact dwarf galaxy
- AGN, AG? : Active Galaxy Nucleus (19785)
 - LIN : LINER-type Active Galaxy Nucleus (851)
 - SyG : Seyfert Galaxy (230)
 - Sy1 : Seyfert 1 Galaxy (15026)
 - Sy2 : Seyfert 2 Galaxy (5021)
 - Bla : Blazar (117)
 - BLL : BL Lac - type object (1663)
 - OVV : Optically Violently Variable object (0)
- QSO : Quasar (147959)
- IG : Interacting Galaxies (1879)

IV.2. Galaxies, spectral properties

- rG : Radio Galaxy (19985)
- H2G : HII Galaxy
- EmG : Emission-line galaxy
- HzG : Galaxy with high redshift (2)
- ERO : Extremely Red Object (936)

IV.3. Galaxies, environment properties

- PoG : Part of a Galaxy
- GiP : Galaxy in Pair of Galaxies
- GiG : Galaxy in Group of Galaxies
- GiC : Galaxy in Cluster of Galaxies
 - BiC : Brightest galaxy in a Cluster (BCG)

V. SETS OF GALAXIES

- PaG : Pair of Galaxies
- GrG, Gr? : Group of Galaxies
 - CGG : Compact Group of Galaxies
- ClG, C?G : Cluster of Galaxies
- SCG, SC? : Supercluster of Galaxies
- vid : Underdense region of the Universe

VI. grv GRAVITATION (0)

- Lev : (Micro)Lensing Event (1210)
- gLS, LS? : Gravitational Lens System (lens+images) (330)
 - gLe ,Le? : Gravitational Lens (303)
 - LeI, LI? : Gravitationally Lensed Image (974)
 - LeG : Gravitationally Lensed Image of a Galaxy (658)
 - LeQ : Gravitationally Lensed Image of a Quasar (77)
- BH?

VII. GENERAL SPECTRAL PROPERTIES

- ev : Transient event (whatever the wavelength)
- Rad : Radio-source
 - mR : metric Radio-source (continuum)
 - cm : centimetric Radio-source (continuum)
 - mm : millimetric Radio-source (continuum)
 - smm : sub-millimetric source (continuum)
 - rB : radio Burst (continuum)
 - HI : HI (21cm) source (line)
 - Mas : Maser (lines)
- IR : Infra-Red source
 - FIR : Far-IR source (from about 30 to a few 100 microns)
 - MIR : Mid-IR source (from about 3 to 30 microns)
 - NIR : Near-IR source (from about 1 to 3 microns)
 - red : Very red source (208)
- Opt : Optical source
 - EmO : Emission Object
- blu : Blue object (14028)
- UV : UV-emission source
- X : X-ray source
 - ULX,UX? : Ultra-luminous X-ray source
- gam : gamma-ray source
 - gB : gamma-ray Burst

VIII. VARIOUS ...

- ? : Object of unknown nature
- mul : Composite object (blend)
- err : Not an object (error, artefact, ...)
- reg : Region defined in the sky
- ...? : Candidate objects (0)



Queries

[basic search](#)

[by identifier](#)

[by coordinates](#)

[by criteria](#)

[reference query](#)

[scripts](#)

[TAP queries](#)

[options](#)

[Display all user annotations](#)

Documentation

[User's guide](#)

[Query by urls](#)

[Nomenclature Dictionary](#)

[Object types](#)

[List of journals](#)

[Measurement description](#)

[Spectral type coding](#)

[User annotations documentation](#)

[Acknowledgment](#)

Information

[Presentation](#)

[Image thumbnails](#)

 [BETA - Mobile version](#)

[SimWatch !\[\]\(2885535958616e9ec6b97903614c334b_img.jpg\)](#)

Release:

SIMBAD4 1.7 - May-2018

[Release history](#)

Content

The SIMBAD astronomical database provides basic data, cross-identifications, bibliography and measurements for astronomical objects outside the solar system.

SIMBAD can be queried by object name, coordinates and various criteria. Lists of objects and scripts can be submitted.

Links to some other on-line services are also provided.

Basic search

identifier, coordinates (radius=10 arcmin), or bibcode

[SIMBAD search](#)

[clear](#)

[help](#)

[Install the Simbad basic search in your tool bar](#)

Acknowledgment

If the Simbad database was helpful for your research work, the following acknowledgment would be appreciated:

This research has made use of the SIMBAD database, operated at CDS, Strasbourg, France

[2000,A&AS,143,9](#) , "The SIMBAD astronomical database", Wenger et al.

Statistics

Simbad contains on 2020.03.03

11,021,748 objects

35,753,389 identifiers

368,183 bibliographic references

20,713,939 citations of objects in papers

Recherche par objet

Basic data :

NGC 4228 -- Starburst Galaxy

query around with radius arc

Other object types: **SBG** () , **G** (BTS, CASG, KUG, LEDA, 2MASX, MCG, TC, UGC, UZC, Z, [M98c], [MI94], [VDD93]) , **IR** (IRAS, PSCz) , **GiG** ([CHM2007]) , **X** (1E)

ICRS coord. (ep=J2000) : **12 15 39.174 +36 19 36.80 (Infrared) [~ ~ ~] B [2006AJ....131.1163S](#)**

FK5 coord. (ep=J2000 eq=2000) : **12 15 39.174 +36 19 36.80 (Infrared) [~ ~ ~] B [2006AJ....131.1163S](#)**

FK4 coord. (ep=B1950 eq=1950) : **12 13 08.52 +36 36 16.9 (Infrared) [~ ~ ~] B [2006AJ....131.1163S](#)**

Gal coord. (ep=J2000) : **160.2543 +78.0745 (Infrared) [~ ~ ~] B [2006AJ....131.1163S](#)**

Radial velocity / Redshift / cz : **V(km/s) 293 [5] / z(-) 0.000977 [0.000017] / cz 292.90 [5.10] (-) D [2002LEDA.....0P](#)**

Morphological type: **IAB(s)m D [2013MNRAS.428.1927C](#)**

Angular size (arcmin): **4.807 3.076 128 (-) (IR) C [2006AJ....131.1163S](#)**

Fluxes (4) :
B 10.3 [-] D [1999PASP..111..438F](#)
J 8.714 [0.028] C [2006AJ....131.1163S](#)
H 8.056 [0.04] C [2006AJ....131.1163S](#)
K 7.908 [0.05] C [2006AJ....131.1163S](#)

Interactive [AladinLite](#) view



Hierarchy : number of linked objects whatever the membership probability is (see description [here](#)) :

parents : 3

children : 36

siblings : 142

Display criteria :

Identifiers (22) :

[NGC](#) 4228

[BTS](#) 106

[CASG](#) 895

[1E](#) 1213.1+3636

[IRAS](#) F12131+3636

[IRAS](#) 12131+3636

[KUG](#) 1213+366

[LEDA](#) 39225

[2MASX](#) J12153917+3619368

[MCG+06-27-042](#)

[NGC](#) 4214

[PSCz](#) Q12131+3636

[TC](#) 201

[UGC](#) 7278

[UZC](#) J121539.6+361935

[Z](#) 187-32

[Z](#) 1213.1+3637

[\[CHM2007\]](#) HDC 706 J121539.17+3619368

[\[CHM2007\]](#) LDC 867 J121539.17+3619368

[\[M98c\]](#) 121308.8+363619

[\[MI94\]](#) Sm 71

[\[VDD93\]](#) 150

□ Recherche par objet

Références bibliographiques

[2018ApJ...852..114H](#) [A X C D ,10]

Astrophys. J., 852, 114-114 (2018/January-2)

Wide-field imaging of the environments of LITTLE THINGS dwarf irregular galaxies.

HUNTER D.A., MELTON C., LESHIN S., WONG A., CLARK M., KAMIENSKI J., MORIYA N., PACKWOOD B., BIRKET B., EDWARDS W., et al.

Simbad objects: [43](#)

CDS status: *being processed*

Commentaire privé:

(q)Laurent Table 2: IC 10-HI blob: on crée dans SIMBAD? Si oui, quelles DF? -MN-16.02.18

// =q=Acro Table 2: IC 10-HI blob: NL (type PoG, coord (rad) D, enfant de IC 10) -MN-23.02.18

[2018ApJ...853..124J](#) [D ,2]

Astrophys. J., 853, 124-124 (2018/February-1)

Tackling the saturation of oxygen: the use of phosphorus and sulfur as proxies within the neutral interstellar medium of star-forming galaxies.

JAMES B. and ALOISI A.

· Simbad objects: [9](#)

[2018ApJS..234...29H](#) [X C D ,20]

Astrophys. J., Suppl. Ser., 234, 29-29 (2018/February-0)

A radio continuum study of dwarf galaxies: 6 cm imaging of LITTLE THINGS.

HINDSON L., KITCHENER G., BRINKS E., HEESSEN V., WESTCOTT J., HUNTER D., ZHANG H.-X., RUPEN M. and RAU U.

Simbad objects: [90](#)

[2017A&A...597A..28B](#) [X ,1]

Astronomy and Astrophysics, volume 597A, 28-28 (2017/1-1)

How can young massive clusters reach their present-day sizes?

BANERJEE S. and KROUPA P.

Simbad objects: [125](#)

[2017A&A...599A...9F](#) [T K A X C ,31]

Astronomy and Astrophysics, volume 599A, 9-9 (2017/3-1)

Disentangling the ISM phases of the dwarf galaxy NGC 4214 using [C II] SOFIA/GREAT observations.

FAHRION K., CORMIER D., BIGIEL F., HONY S., ABEL N.P., CIGAN P., CSENGERI T., GRAF U.U., LEBOUTEILLER V., MADDEN S.C., et al.

<Available at CDS ([J/A+A/599/A9](#)): list.dat fits/*>

Simbad objects: [14](#)

Commentaire privé:

(F) list.dat AlineE 10/05/2017

Occurrences et place dans le texte

Recherche par position

SIMBAD: Query by coordinates

[other query modes :](#)
[Identifier query](#)
[Coordinate query](#)
[Criteria query](#)
[Reference query](#)
[Basic query](#)
[Script submission](#)
[Output options](#)
[Help](#)

Enter coordinates:

Coordinates:

The following writings are allowed:

20 54 05.689 +37 01 17.38
 10:12:45.3-45:17:50
 15h17m-11d10m
 15h17+89d15
 275d11m15.6954s+17d59m59.876s
 12.34567h-17.87654d
 350.123456d-17.33333d <=> 350.123456 -17.33333

define the input : system : epoch : equinox :
 or choose :
 define a radius :

Object query : coord 12 15 39.174 +36 19 36.00 (FK5, 2000, 2000),
radius: 2 arcmin

C.D.S. - SIMBAD4 rel 1.22
2014.04.04CEST09:49:

Number of rows : 149 Equat. Gal SGal Ecl

N	Identifier	dist(asec)	Otype	ICRS (J2000) RA	ICRS (J2000) DEC	Sp type	#ref 1850 - 2014	#notes	#CDSnotes
1	NGC 4228	0.80	SBG	12 15 39.174	+36 19 36.80	~	675	0	0
2	[CW2009] N4214-05	1.96	HII	12 15 39.04	+36 19 37.1	~	1	0	0
3	[BTK2000] NGC 4214 N2	2.05	Rad	12 15 39.029	+36 19 37.07	~	1	0	0
4	[BTK2000] NGC 4214 N	2.10	Rad	12 15 39	+36 19.6	~	1	0	0
5	[H82] NGC 4214 6	2.30	PoG	12 15 39.214	+36 19 33.75	~	6	0	0
6	[MMM98b] Knot 8	2.59	PoG	12 15 38.983	+36 19 37.17	~	4	0	0
7	[BTK2000] NGC 4214 N1	2.59	Rad	12 15 39.270	+36 19 33.68	~	1	0	0
8	[CW2009] N4214-06	2.69	HII	12 15 39.29	+36 19 33.7	~	1	0	0
9	[MMM98b] Knot A	3.38	PoG	12 15 39.441	+36 19 34.99	~	3	0	0
10	[CLT2004] NGC 4214 1	4.06	CI*	12 15 39.5	+36 19 35	~	3	0	0
11	[MMP2000] I-As	4.45	CI*	12 15 39.5400	+36 19 36.490	~	5	0	0
12	[MMP2000] I-A	4.45	CI*	12 15 39.5400	+36 19 36.490	~	6	0	0
13	[MMM98b] Knot 10	5.33	PoG	12 15 39.397	+36 19 40.60	~	3	0	0
14	[CW2009] N4214-07	5.62	HII	12 15 39.55	+36 19 32.7	~	1	0	0
15	[H82] NGC 4214 23	6.00	CI*	12 15 39.558	+36 19 32.20	~	18	0	0
16	NAME NGC 4214-I	6.47	HII	12 15 39.686	+36 19 34.12	~	13	0	0
17	[MMM98b] Knot 9	6.47	PoG	12 15 39.697	+36 19 37.38	~	3	0	0
18	HK NGC 4214 48	6.66	HII	12 15 39.7	+36 19 34	~	3	0	0
19	[MMP2000] I-C1n	7.50	PoG	12 15 38.741	+36 19 30.63	~	2	0	0



Recherche par référence

SIMBAD: Query references

other query [Identifier query](#) [Coordinate query](#) [Criteria query](#) [Reference query](#) [Basic query](#) [Script submission](#) [Output options](#) [Help](#)

Enter search criteria:

[Journals](#) :

Example: A&A,ARJ,mnras

year limits : from to Simbad bibliographic survey began in 1950 for stars (at least bright stars) and in 1983 for all other **\$currentYear** can be used to specify dynamically the current year.

authors :

Example: JASCHEK & ('egret d'|Acker)

[Find an author](#)

title words :

Example: supernova & ('crab nebula' | cygnus)

or Enter a bibcode or a DOI :

bibcode or DOI :

Example: 2000A&A...353..322A

display objects in the reference (for regular bibcode only)

or reference items: year: [journal abbrev](#): volume: page:



[2013MNRAS.433.3440M](#)

Mon. Not. R. Astron. Soc., 433, 3440-3452 (2013)

X-ray photodesorption and proton destruction in protoplanetary discs: pyrimidine.

MENDOZA E., ALMEIDA G.C., ANDRADE D.P.P., LUNA H., WOLFF W., ROCCO M.L.M. and BOECHAT-ROBERTY H.M.

Comments & notes:

notes: W52 is a misprint for W51.

flags: (abstract)

Number of rows : 11

Equat. Gal SGal Ecl

N	Identifier	obj tags	obj count	Otype	ICRS (J2000) RA	ICRS (J2000) DEC	Sp type	#ref 1850 - 2014	#notes	#CDSnotes
1	V* DM Tau	x	2	TT*	04 33 48.718	+18 10 09.99	K5V:e...	322	0	0
2	V* V1079 Tau	x	1	Or*	04 39 17.796	+22 21 03.48	K5	297	1	0
3	TMC-1	x	5	MoC	04 41 45.9	+25 41 27	~	1044	0	0
4	V* V353 Aur	x	2	pA*	04 42 53.64	+36 06 53.4	B0	823	0	0
5	V* GO Tau	x	1	Or*	04 43 03.095	+25 20 18.75	K5V:e	99	0	0
6	NAME ORION-KL	x	1	MoC	05 35 14.16	-05 22 21.5	~	1436	1	0
7	V* CW Leo	x	3	Mi*	09 47 57.406	+13 16 43.56	C9.5e	1806	1	0

□ Le dictionnaire de Nomenclature

Dictionary of Nomenclature of Celestial Objects

(Last update: 31-Mar-2014)

Designations of astronomical objects are often confusing. Astronomical designations (also called *Object Identifiers*) have been collected and published by Lortet and collaborators in *Dictionaries of Nomenclature of Celestial Objects outside the solar system* ([Biblio](#)). This *Info service* is the electronic look-up version of the *Dictionary* which is updated on a regular basis; it provides full references and usages about 21754 different acronyms.

To find out the meaning of specific acronyms or related references, choose and fill the form below; the words you type in the box are *anded*, i.e. the acronyms matching *all words* will be displayed.

Type in your words: Choose one of the *Info* possibilities:

Clear

Select the output layout: Default SIMBAD Usage

Select the number of answers:

...and ask for the result



Obj. Type	Acronym	(Explanation)	Format
E Galaxy	A	(Arp)	APG NNNA
+ PN	Ap	(Apriamaswili)	PN Ap 1-NN PN Ap 2-NN PN Ap 3-NN PN Ap 4-NN PN Ap 5-NN
Pulsar	AP	(Arecibo obs. Pulsar)	PSR HHMM+DD
GinCl (<i>ACO 1413</i>)	[AP74]	(Austin+Peach 1974)	(not yet in Simbad)
PartofG (<i>NGC 1487</i>)	[AP97]	(Aguero+Paolantonio 1997)	[AP97] NN
E Galaxy (<i>NAME CDFS</i>)	[APA2006]	(Alonso-Herrero+Perez-Gonzalez+Alexander+2006)	[APA2006] MIPS24 NNNNNN
? (<i>M 31 = NGC 224</i>)	[APB76]	(Alloin+Pelat+Bijaoui 1976)	(not yet in Simbad)
+ Galaxy	[APB90]	(Asatrian+Petrosian+Borngen 1990)	[APB90] A
+ Galaxy	[APC2003]	(Astier+Pritchett+CFHT Legacy Survey+2003)	[APC2003] JHHMMSS.ss+DDMMSS.s
E + IR (<i>Coma Cluster = ACO 1656</i>)	[APD2000]	(Andreon+Pello+Davoust+ 2000)	[APD2000] JHHMMSS.s+DDMMSS
E Galaxy	APG	(Atlas of Peculiar G)	APG NNNA
E IR<10um (<i>[C86] L988 e</i>)	[APG2008]	(Allen+Pipher+Gutermuth+ 2008)	[PG2008] JHHMMSS.ss+DDMMSS.ss

□ La mise à jour

- La console de mise à jour : traitement « à la main » des journaux

Table 2. Ten EGRET sources: *Fermi* analysis results.

Source name	TS (7 years)	UL (photon cm ⁻² s ⁻¹)	TS (3 years)	UL (photon cm ⁻² s ⁻¹)	(Egret_Flux/ <i>Fermi</i> _UL)
3EG J0239+2815	3.06	3.56 × 10 ⁻⁹	10.68	1.25 × 10 ⁻⁸	38.76 ± 7.30
3EG J0423+1707	0.34	5.85 × 10 ⁻⁹	1.28	7.93 × 10 ⁻⁹	27.01 ± 4.62
3EG J0808+5114	0.20	7.99 × 10 ⁻¹⁰	0.09	2.65 × 10 ⁻⁹	108.89 ± 30.04
3EG J0917+4427	1.82	2.07 × 10 ⁻⁹	0.19	9.31 × 10 ⁻⁹	66.67 ± 9.66
3EG J1310-0517	15.13	8.15 × 10 ⁻⁹	6.46	1.30 × 10 ⁻⁸	9.69 ± 2.21
3EG J1347+2932	12.17	6.68 × 10 ⁻⁹	6.52	7.74 × 10 ⁻⁹	14.37 ± 4.34
3EG J1634-1434	0.16	1.50 × 10 ⁻⁹	1.22	5.85 × 10 ⁻¹⁰	76.67 ± 18.67
3EG J1959+6342	1.32	1.24 × 10 ⁻⁹	3.92	9.24 × 10 ⁻¹⁰	107.26 ± 24.99
3EG J2027+3429	<0	2.13 × 10 ⁻⁹	<0	5.97 × 10 ⁻⁹	121.60 ± 22.07
3EG J2358+4604	1.16	2.45 × 10 ⁻⁹	1.25	2.68 × 10 ⁻⁹	58.37 ± 15.10

3EG sources (Section 4). However, TS maps indicate the presence of 39 new γ -ray sources from the new cumulative data. The standard *gfindsrc* tool has been utilized to determine the position of these new sources. The new sources are included in the model file to carry out source localization using *gfindsrc*. A single power-law spectral model is assumed for all these new sources. The spectral parameters of these new sources and of sources falling within 1° radius around new sources are not frozen while carrying out *gfindsrc*. Spectral parameters and TS values of new *Fermi* sources and also those of possible *Fermi* counterparts to these ten 3EG sources (upper limits where there are no detections) are calculated using binned likelihood analysis. Thus the model file used includes all new sources with optimized positions. The results from *gfindsrc* confirm the detection of 37 new sources (out of 39) with TS > 25 (Table 3). Two new sources have detection significance <4 σ (Table 3).

Since EGRET positions of the ten sources are not well constrained, we investigate further whether any of the newly detected *Fermi* sources in the present analysis could be counterparts of the 3EG sources (Section 4).

4 RESULTS

We calculate γ -ray fluxes of possible *Fermi* counterparts of these 3EG sources using ~ 7 years of *Fermi* observations compared with their EGRET fluxes (Table 4). For 3EG sources for which no possible *Fermi* counterparts are found, upper limits have been calculated using EGRET localization (Table 4). The details of individual sources are given below.

4.1 3EG J0239+2815

The 3EG catalogue classifies 3EG J0239+2815 as a possible active galactic nucleus. The 95 percent EGRET position-error radius of this source is 0.47°. According to Sowards-Emmerd et al. (2003, 2004), the radio counterpart of this source is J0237+2848 (GB6 J023752+284814). *Fermi* source 3FGL J0237.9+2848, which is classified as a FSRQ in the 3FGL catalogue, is 0.01° away from the EGRET radio counterpart. The mentioned radio counterpart of 3FGL J0237.9+2848 is GB6 J0237+2848, which is cross-identified with the radio counterpart of EGRET. Thus, we conclude that 3FGL J0237.9+2848 is the *Fermi* counterpart of 3EG J0239+2815. Also, in this work five new γ -ray sources are detected within a ROI of 10° radius centred at the EGRET position of 3EG J0239+2815. The nearest one is $\sim 5.3^\circ$ away from the radio-counterpart position of 3EG J0239+2815.

Fig. 1 shows the TS map of the region centred at the EGRET position of 3EG J0239+2815. The 95 percent position-error circles of 3EG J0239+2815, its radio-counterpart position and *Fermi* source 3FGL J0237.9+2848 are also shown.

4.2 3EG J0423+1707

3EG J0423+1707 was categorized as a confused, extended or multiple source in the 3EG catalogue. The 95 percent EGRET position-error radius of this source is 0.77°. According to Sowards-Emmerd et al. (2003, 2004), the possible radio counterpart of this source is J0422+1741 (GB6 J042246+174113), which is 0.60° away from the EGRET position. 3FGL J0430.5+1655 is the nearest *Fermi* source, which is 1.99° away from the radio counterpart of

```
Console simbadMAJ
Fichier Edition Graphic
login : es
passwd : *****
output set to file : /home/son/.simbad//log.2018.03.13-14-08-31_outes
O[B] | B[IB] | h[elp] : update > b 2017MNRAS.471.5008B

2017MNRAS.471.5008B: BHATTACHARYA D., MOHANA K.A., GULATI S., BHATTACH
and STALIN C.S.
<Mon. Not. R. Astron. Soc., 471, 5008-5017 (2017/November-2)>
Unusual long-term low-activity states of EGRET blazars in the Fermi era.
--Status:~
--Errata:~
---Dic.:~
-(Flags):(abstract)
--Files:~
--Notes:~
CDS-work:=0=
--Dates:12-Jan-2018 / 12-Jan-2018

2017MNRAS.471.5008B : update > o 3EG J0239+2815, sdx

!! INFO :: Coordonnées trouvées : 02 39.0+28 15

!! INFO :: Coordonnées trouvées : 02 39.0+28 15

Ajout du lien :3EG J0239+2815 / 2017MNRAS.471.5008B
=====
2EG J0239+2818
=====
```

—▶ Long et fastidieux... surtout pour les articles avec de nombreux objets !

□ La mise à jour



since 2008

- Detection in Journals of Identifiers and Names

A screenshot of the DJIN software interface. The window title is "DJIN - fromUrl.pdf". The menu bar includes "File", "Name", "Identifier", "Search", "Configuration", and "Help". Below the menu bar, there are input fields for "Journal: MNRAS", "Volume: 473", and "Bibcode: 2018MNRAS.473L..50L". A toolbar contains icons for search, save, and other functions. The main content area is divided into a left sidebar and a right pane. The sidebar lists 20 object names, with "PSR J1306-40 (25)" selected. The right pane displays the title "The 26.3-h orbit and multiwavelength properties of the 'redback' millisecond pulsar PSR J1306-40" in bold black text, with "PSR J1306-40" highlighted in red. Below the title are sections for "Authors" (Manuel Linares), "Abstract" (a paragraph of text with "PSR J1306-40" highlighted in red), "Keyword" (a list of keywords with "PSR J1306-40" highlighted in red), and "1 INTRODUCTION".

→ Détection automatique des objets (+ occurrences, place dans le texte, « raw-id »...). Mais des vérifications nécessaires.

□ La mise à jour



The screenshot displays the DJIN software interface. The main window shows a list of 14 object names, including 2MASS J13065627-4035233 (1), 3FGL J1306.8-4031 (6), 3FGL J1417.5-4402 (2), 3XMM J130656.2-403523 (1), ESO 323-77 (1), ESO 323-81 (1), J130656.3-403522 (3), NGC 6397 (1), PSR 1957+20 (1), PSR J1023+0038 (1), PSR J1301-40 (1), PSR J1306-40 (25), PSR J1740-5340 (1), and WISE J130656.28-403523.3 (1). A search results window titled "11 identifiers (0 already entered)" lists several objects, including 2MASS J13065627-4035233, 3FGL J1306.8-4031, 3FGL J1417.5-4402, 3XMM J130656.2-403523, ESO 323-81, NGC 6397, PSR 1957+20, PSR J1023+0038, PSR J1301-40, PSR J1306-40, and PSR J1740-5340. A command execution window titled "Commands for PSR J1740-5340" shows a list of commands and their results. A second command execution window titled "Commands for 2MASS J13065627-4035233" shows a list of commands and their results, including a message "[1] Identifier not found in the database : 2MASS J13065627-4035233".

mise à jour des données ?

« misprint »

nouvel objet à créer :

+ X-id
+ données

→ Et un travail d'expertise pour les documentalistes !

□ La mise à jour

- Identifier les objets peut se révéler ardu :

Exemples:

NX 99 ⇒ [FPS2006] NX 99

S04 18 ⇒ [SWW2004] J053700.310-022826.34

B3.01-67 ⇒ [KJN2005] 3.01-67

CXO 22 ⇒ [SSC2008] 22

A370-sys1 ⇒ NAME ACO 370 Giant Arc

Cluster 1 ⇒ [OD99] H4

- Nécessite parfois de consulter d'autres sources :

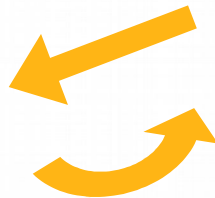


... + archives et catalogues en ligne

□ Le rôle du documentaliste



13.000 articles / an
> 3.000 articles / pers / an
16 articles (~250 pages) / pers / jour



Nouveaux
identificateurs
et acronymes
> 500 / an



Tables &
données en ligne
~1500 articles / an



Astronomes -
Informaticiens



□ VizierR

19800 catalogues



Name	RAJ2000 "h:m:s"	DEJ2000 "d:m:s"	AHa mag	SFRUV [Msun/yr]	Pap.II	SimbadName	NED
WLM	00 01 58.1	-15 27 39	0.10	-2.21	PapII	NAME WLM GALAXY	NED
ESO409-IG015	00 05 31.8	-28 05 53	0.14	-1.45	PapII	ESO409-IG015	NED
NGC24	00 08 56.7	-24 57 44	0.41	-0.70	PapII	NGC24	NED
NGC45	00 14 54.0	-39 11 49	0.50	-0.40	PapII	NGC45	NED
NGC55	00 14 54.0	-39 11 49	0.55	-0.26	PapII	NGC55	NED
NGC59	00 15 25.4	-21 26 42	0.19	-1.94	PapII	NGC59	NED
MCG-04-02-003	00 19 11.4	-22 40 06	0.10	-2.04	PapII	MCG-04-02-003	NED
ESO473-G024	00 31 22.5	-22 45 57	0.10	-2.05	PapII	ESO473-G024	NED
AndIV	00 42 30.1	+40 34 33	0.10	-2.52	PapII	AndIV	NED
IC1574	00 43 03.8	-22 14 49	0.10	-2.30	PapII	IC1574	NED

- Différentes origines : publications d'astrophysique (sélection par DJIN ou envoi direct par les auteurs), archives (HST, XMM, SDSS...)
- Différents formats d'origine (pdf, xml, html, ascii, MRTs, fits...)
- Différents contenus : logs d'observation, modèles, grands surveys (2MASS, Gaia...)
- ➔ Standardiser les données, décrire ces données dans un ReadMe, enrichir par des métadonnées (description standardisée de chaque colonne, ajout de coordonnées, liens entre tables/catalogues de Vizier, Simbad, NED...), vérifications du contenu (erreurs...) → **Valeur ajoutée**
- ➔ Données interopérables (VO, TOPCAT...), exploitables (plots interactifs, images associées, visualisations de photométrie : traçage automatique de plots...)

□ COSIM



- Traitement semi-automatique des grandes tables pour Simbad.
- Permet de comparer un fichier d'entrée (formaté / Vizier) avec le contenu de Simbad → Xids ou ajout de nouveaux objets ?
- Chaque paramètre doit être ajusté (précision des coordonnées, magnitudes, vitesses, types d'objets compatibles...).

On obtient des scores permettant de déterminer s'il y a un candidat potentiel dans Simbad :

- Aucun objet compatible → création d'un nouvel objet
- Tous critères compatibles → Xid avec un objet déjà présent dans Simbad
- Score mitigé → il faut regarder au cas par cas pour trancher !!

+ Ajout de données, préservation de l'historique de certaines mesures, homogénéisation des données impliquant parfois des transformations ou calculs...

