

CoRoT at CDS through VizieR

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Observatoire astronomique
de Strasbourg

VizieR



- Flagship service of CDS, with SIMBAD
- Library of catalogs+tables published in journals, large surveys >11 500 catalogs
 - Standardized content description
 - Queries on metadata
 - VO-compatible
- >450 000 queries/day, excellent visibility, 7 mirrors
- Easy access to data (google “corot vizier”)
- Access through keywords (time series)
- Cone search

CoRoT in VizieR



- CoRoT data in VizieR since 2008
- Inserted/accessed ~similarly to other VizieR data modulo metadata extraction from headers
- Automatic scripted update
 - => Always in phase with IAS
- Systematic visualization of light curves
- Links to fits files containing light curves and windescriptors

Accès par
“mission
CoRoT”

Sélection de catalogue par mot-clé « corot »

VizieR Service

Important notice: CDS services located at Strasbourg will be down on September 9th and 13th. [Click here for more details.](#)

Search Criteria

Find catalogs among 11542 available

corot Expand search

?

Catalog, author's name, word(s) from title, description, etc.
e.g.: AGN, Veron, II239, or bibcodes...

► Search for catalogs by column descriptions (UCD) ?

▼ Hide catalogs containing additional data

time serie spectrum images cube SED (Spectral Energy Distribution) none

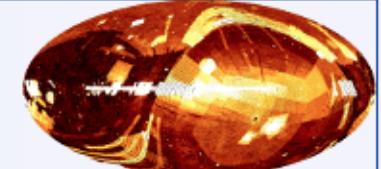
Wavelength Mission Astronomy

Radio	Chandra	Abundances
IR	COBE	Ages
optical	Copernicus	AGN
UV	CoRoT	Associations
EUV	Einstein	Atomic_Data
X-ray	EUVE	Binaries:cataclysmic
Gamma-ray	EXOSAT	Binaries:eclipsing

Search by Position across 12015 tables

Target Name (resolved by [Sesame](#)) or Position: J2000 Target dimension: 2 arcmin Radius Box size

?

[More about VizieR](#) ~ 1 matching catalogs 

Browsing modes: [Designation](#), [Acronyms](#), [Favorites](#), [Dates](#), [Image,spectra](#), [Kohonen](#)
Or list [the large surveys](#)

Tools related to VizieR

- [TAP VizieR](#) : query VizieR using ADQL (a SQL extension dedicated for astronomy)
- [CDS cross-match service](#) : fast cross-identification between any 2 tables, including VizieR catalogues, SIMBAD

Catalog selection by keyword « corot »

Access per mission

VizieR Service

Find catalogs among 11578 available

Search Criteria

Preferences
max: 50
HTML Table
 All columns
Compute
Mirrors
CDS, France

Search Criteria

corot Expand search

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e.g.: AGN, Veron, II/239, or bibcodes...

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Wavelength

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optical	COBE	AGN
UV	Copernicus	Associations
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X-ray	Einstein	Binaries:cataclysmic
Gamma-ray	EUVE	Binaries:eclipsing
	EXOSAT	

Search by Position across 12060 tables

Target Name (resolved by [Sesame](#)) or Position:
 J2000 arcmin Radius Box size



[More about VizieR](#) ~ 1 matching catalogs

Browsing modes: [Designation](#), [Acronyms](#), [Favorites](#), [Dates](#), [Image spectra](#), [Kohonen](#)
Or list [the large surveys](#)

Tools related to VizieR

- [**new Photometry tools**](#) : Plot photometry (sed) including all VizieR
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→ Thanks for acknowledging the VizieR Service

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Catalog selection by keyword « corot »

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VizieR Service

Find catalogs among 11578 available

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max: 50
HTML Table
 All columns
► Compute
Mirrors
CDS, France

corot Expand search

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Catalog Selection Page



4 catalogs found

Search Criteria

Keywords
corot

Tables
 B/corot
..astero
..exo
J/A+A/479/865
..table3
► Enlarge

Preferences
max: 50

HTML Table

All columns

Compute

Mirrors
CDS, France

Radmm OptUV X Y	CoRoT observation log Release 13 (CoRoT, 2009-2013)	ReadMe+ftp	
B/corot		timeSerie/fits	Similar Catalogs
<input type="checkbox"/> B/corot/astero	(c)Stars observed in the asteroseismology program (150 rows)		
<input type="checkbox"/> B/corot/exo	(c)Stars observed in the exoplanet detection program. (150258 rows)		
J/A+A/479/865	CoRoT exoplanet candidates (Loeillet+, 2008)	2008A&A...479..865L	ReadMe+ftp
			Similar Catalogs
<input type="checkbox"/> J/A+A/479/865/table3	(c)Binary systems (50 rows)		
<input type="checkbox"/> J/A+A/479/865/table4	(c)Characteristics of identified targets with a line-bisector effect (9 rows)		
<input type="checkbox"/> J/A+A/479/865/table5	(c)Brown dwarf and exoplanet candidate hosting stars (14 rows)		
Radmm OptUV X Y	Solar-like oscillations in red giants (Hekker+, 2009)	ReadMe+ftp	
J/A+A/506/465		Similar Catalogs	2009A&A...506..465H
<input type="checkbox"/> J/A+A/506/465/table1	(c)Oscillation parameters of 778 red giants observed with CoRoT (778 rows)		
Radmm OptUV X Y	Supervised classification of CoRoT variables (Debosscher+, 2009)	ReadMe+ftp	
J/A+A/506/519		Similar Catalogs	2009A&A...506..519D
<input type="checkbox"/> J/A+A/506/519/classes	(c)Results of the classification on the CoRoT runs IRa01, LRc01, SRc01 and LRa01 (39656 rows)		
<input type="checkbox"/> ALL		Reset All	Query selected Tables
			Join selected Tables

(c) indicates tables which contain celestial coordinates

Catalog Selection Page



56 catalogs found

Search Criteria

Keywords
corot

Preferences
max: 50

HTML Table

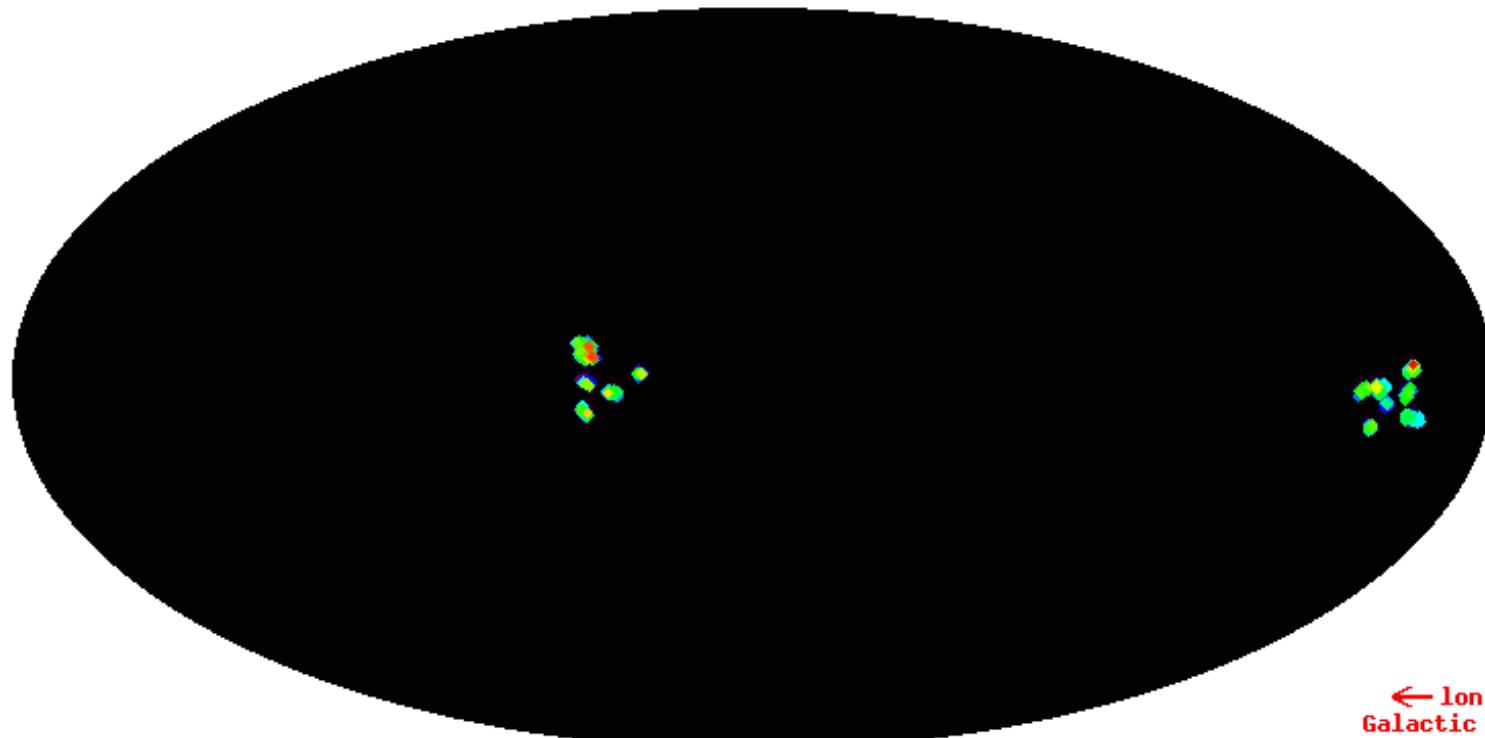
All columns

Compute

Mirrors
CDS, France

<input type="checkbox"/>	<input type="checkbox"/> ALL	<input type="checkbox"/> Reset All	Show table details	<i>or</i>	Query selected Catalogs
<input type="checkbox"/>	Radmin R Opt V X Y B/corot	150k	(c) CoRoT observation log Release 13 (CoRoT, 2009-2013)	timeSerie/fits	ReadMe+ftp
<input type="checkbox"/>	Radmin R Opt V X Y J/ApJ/707/1707		757 Ks-band light curve of CoRoT-1b (Rogers+, 2009)	Objects	2009ApJ...707.1707R
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/451/1053	448	(c) Fundamental parameters of Be stars (Fremat+, 2006)	image	2006A&A...451.1053F
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/469/713	180	(c) Chromospherically active stars in CoRoT fields (Medhi+, 2007)	2007A&A...469..713M	ReadMe+ftp
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/479/865	73	(c) CoRoT exoplanet candidates (Loeillet+, 2008)	2008A&A...479..865L	ReadMe+ftp
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/482/L17		CoRoT space mission. I. (Barge+, 2008) (see catalog B/corot for CoRoT data)	Objects	2008A&A...482L..17B
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/491/889		CoRoT-Exo-3b observations (Deleuil+, 2008)	Objects	2008A&A...491..889D
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/79		422 Asteroseismic analysis of HD 174936 (Garcia Hernandez+, 2009)	2009A&A...506..79G	ReadMe+ftp
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/85		462 HD 50844 observed by CoRoT (Poretti+, 2009)	Objects	2009A&A...506..85P
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/95		429 Fourier analysis of HD 49330 CoRoT light curve (Huat+, 2009)	2009A&A...506..95H	ReadMe+ftp
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/111		295 Frequency analysis of HD 180642 (V1449 Aql) (Degroote+, 2009)	Objects	2009A&A...506..111D
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/143		84 Pulsations of HD 181231 (Neiner+, 2009)	Objects	2009A&A...506..143N
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/213	234	(c) B6-B9.5 stars abundance analysis (Niemczura+, 2009)	2009A&A...506..213N	ReadMe+ftp
<input type="checkbox"/>	Radmin R Opt V X Y J/A+A/506/3030		109 CoRoT-7 radial velocities (Queloz+, 2009)	timeSerie	Objects
				2009A&A...506..3030	ReadMe+ftp

[B/corot] *CoRoT observation log Release 13 (CoRoT, 2009-2013)*



Object
density
map

Galactic
249.52-21.25

Ecliptic
103.24-64.36

Equatorial
06h30m18.5s-41°16'12"

Resolution

Projection

equatorial aitoff

Projection center

0.0+0.0

Color Map

rainbow

Scaling

linear

Adapt the Footprint

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[Contact](#)

VizieR Search Page

Search Criteria

Save in CDSportal [Back](#)

Keywords

- B/corot/astero

Tables

B/corot
..astero
..exo

[Add](#)

[Choose](#)

Preferences

max: 50

HTML Table

All columns

Compute

Distance

Distance (x,y)

Galactic

J2000

B1950

Ecl. J2000

default

Sort by Distance

No sort

Position in:

Sexagesimal

Decimal °

Mirrors

CDS, France

Simple Target **List Of Targets** [Fast Xmatch with large catalogs](#)

Target Name (resolved by [Sesame](#)) or Position: Target dimension: J2000 2 arcmin

Radius Box size

CoRoT observation log Release 13 (CoRoT, 2009-2013)

Radmm R B0t0 UV X Y timeSerie/fits Similar Catalogs ReadMe+ftp Post annotation

B/corot

1.B/corot/astero Stars observed in the asteroseismology program (150 rows)

Simple Constraint **List Of Constraints** [Submit](#) [Reset All](#)

Query by [Constraints](#) applied on Columns (Output Order: [+/-](#))

Show	Sort Column	Clear	Constraint	Explain (UCD)
<input type="checkbox"/>	<input checked="" type="radio"/> recno	<input type="text"/>		Record number within the original table (starting from 1) (meta.record)
<input checked="" type="checkbox"/>	<input checked="" type="radio"/> Img	<input type="text"/> Img		Image of the time serie (meta.ref.url) timeSerie
<input type="checkbox"/>	<input checked="" type="radio"/> FileDate	<input type="text"/>	s	(n)(crea_dat) File generation date (time.epoch;meta.file)
<input type="checkbox"/>	<input checked="" type="radio"/> PV	<input type="text"/>	(char)	(pipe_ver) Pipeline process version (meta.software)
<input type="checkbox"/>	<input checked="" type="radio"/> N2V	<input type="text"/>	(char)	(n2_ver) Version of N2 data (meta.software)
<input checked="" type="checkbox"/>	<input checked="" type="radio"/> date1	<input type="text"/>	s	(n)(startdat) UT date of first measurement (time.epoch)
<input checked="" type="checkbox"/>	<input checked="" type="radio"/> date2	<input type="text"/>	s	(n)(end_date) UT date of last measurement (time.epoch)
<input checked="" type="checkbox"/>	<input checked="" type="radio"/> CoRoT	<input type="text"/>		[1/21960] (corotid) ID of the CoRoT target (meta.id;meta.main)
<input checked="" type="checkbox"/>	<input checked="" type="radio"/> SpT	<input type="text"/>	(char)	(spectral_type) Spectral type, from EXODAT (src.spType)
<input checked="" type="checkbox"/>	<input checked="" type="radio"/> Run	<input type="text"/>	(char)	[SLIRca0-9] (run_code) (Note G1) (meta.id;obs)
<input type="checkbox"/>	<input checked="" type="radio"/> CCD	<input type="text"/>	(char)	(hfcccid) reference of the half CCD from which the product originates e.g. 'E1R' for Right CCD#1 of Exoplanet channel (obs.field)
<input type="checkbox"/>	ALL cols	Reset All	Clear	(n) indicates a possible blank or NULL column Submit
<input type="checkbox"/>	<input checked="" type="radio"/> Vmag	<input type="text"/> mag		(n) (magnit_v) Visual magnitude of the target (phot.mag.em.opt.V)
				(n) (magdiff) Color index (B-V)

Astro query page

Query on

- columns
- columns combinations

Portal Simbad VizieR Aladin X-Match Other Help

VizieR Result Page

Send to VO tools

Show the target form
Show constraint information

The 5 columns in **color** are computed by VizieR, and are *not part of the original data*.

B/corot/astero CoRoT observation log Release 13 (CoRoT, 2009-2013)
[Post annotation](#) Stars observed in the asteroseismology program (150 rows)

[ReadMe+ftp](#)

Full	RAJ2000 "h:m:s"	DEJ2000 "d:m:s"	Img	date1 s	date2 s	CoRoT	SpT	Run	RAJ2000 deg	DEJ2000 deg	size Mbyte	Star	Plot	FITS
1	06 54 24.72	-01 07 37.1		2007-01-31	2007-04-02	116	A4IV	IRa01	103.60300	-01.12698	14.455	HD 50747	Plot	FITS
2	06 55 54.24	-01 35 07.3		2007-01-31	2007-04-02	214	A3	IRa01	103.97600	-01.58537	14.455	HD 51106	Plot	FITS
3	06 51 51.84	-02 10 33.7		2007-01-31	2007-04-02	223	F2	IRa01	102.96600	-02.17604	14.455	HD 50170	Plot	FITS
4	06 50 49.92	-00 32 27.2		2007-01-31	2007-04-02	20	F2V	IRa01	102.70800	-00.54088	14.443	HD 49933	Plot	FITS
5	06 54 44.64	-02 07 23.2		2007-02-06	2007-04-02	263	F8	IRa01	103.68600	-02.12311	13.009	HD 292790	Plot	FITS
6	06 53 02.88	-01 53 01.1		2007-02-06	2007-04-02	187	A0	IRa01	103.26200	-01.88363	13.009	HD 50405	Plot	FITS
7	06 54 58.80	-02 48 12.9		2007-02-06	2007-04-02	400	G6III	IRa01	103.74500	-02.80359	13.009	HD 50890	Plot	FITS
8	06 54 50.16	-01 04 14.8		2007-02-03	2007-04-02	123	A2	IRa01	103.70900	-01.07078	13.726	HD 50844	Plot	FITS
9	06 54 54.72	-01 22 32.8		2007-02-03	2007-04-02	156	B5	IRa01	103.72800	-01.37579	13.723	HD 50846	Plot	FITS
10	06 54 36.96	-00 27 09.5		2007-02-03	2007-04-02	83	A2	IRa01	103.65400	-00.45264	13.723	HD 50773	Plot	FITS
11	19 22 21.60	-00 15 08.4		2007-05-11	2007-10-15	8774	G8III	LRc01	290.59000	-00.25234	37.224	HD 181907	Plot	FITS
12	19 20 56.40	+00 54 53.9		2007-05-11	2007-10-15	8669	A5	LRc01	290.23500	+00.91496	37.218	HD 181555	Plot	FITS
13	19 18 58.08	+00 59 08.6		2007-05-11	2007-10-15	8527	A2	LRc01	289.74200	+00.98571	37.218	HD 181072	Plot	FITS

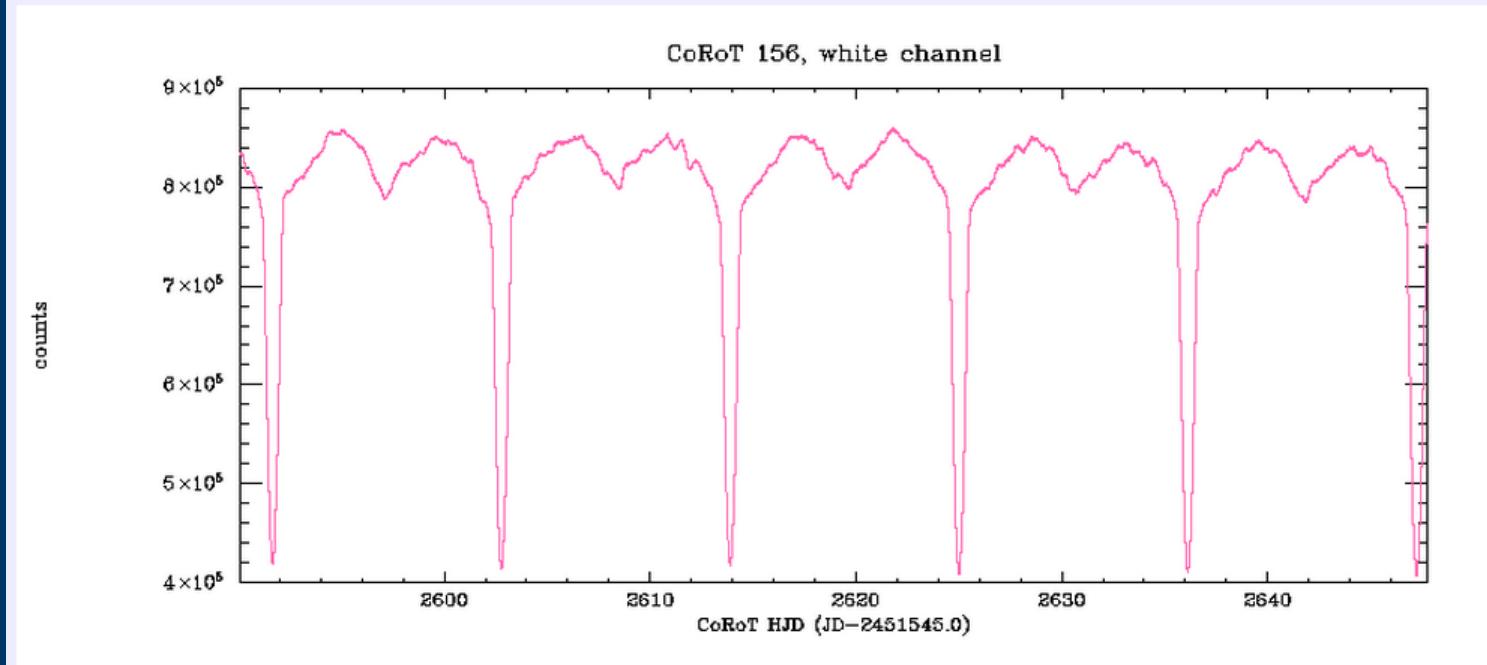
Astro
Links to
data
(.FITS)

Light curves
as
Thumbnails
and separate
plots

Complement to B/corot

[Back] · [Forwd] · [Print] · [Close]

Light curve of [CoRoT 156](#) in White (points with status=0)



[Postscript Figure](#)

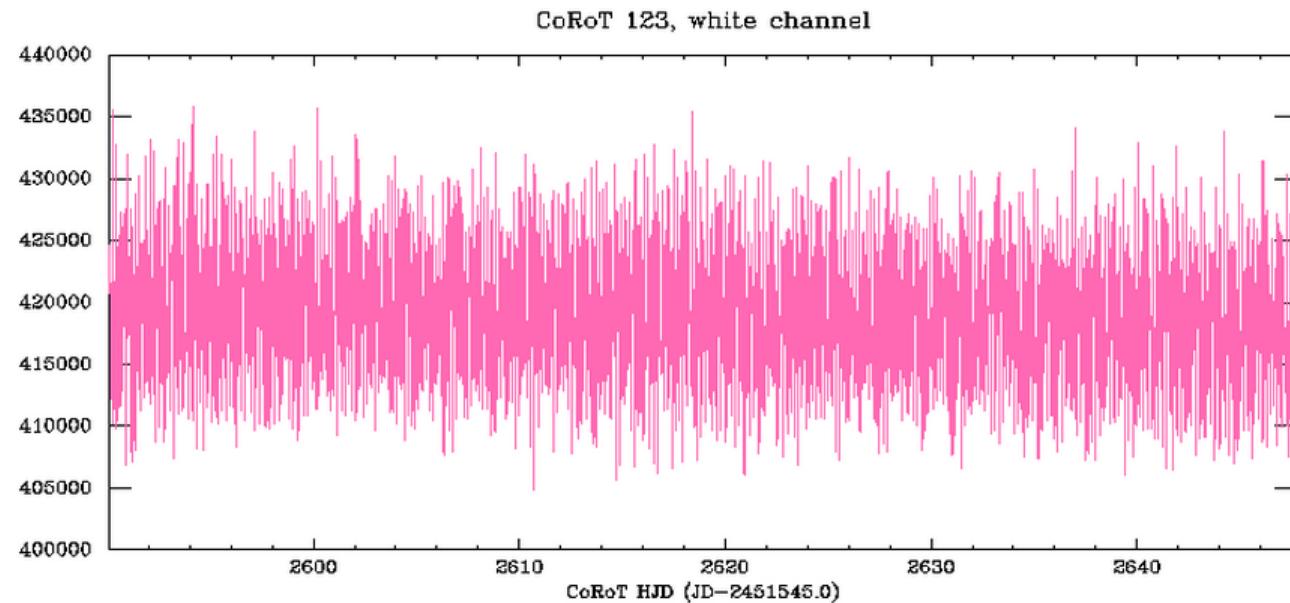
[Data as a Table](#)

Adapt Plot	Band <input type="button" value="White"/>	x cuts: <input type="text"/> <input type="text"/> xlog <input type="checkbox"/> Bitmap size: <input type="text" value="900x400"/>
	P <input type="text" value="0"/>	y cuts: <input type="text"/> <input type="text"/> ylog <input type="checkbox"/> <input type="button" value="Adapt the plot"/>

« simple »
visualization
of light curves

Zoom functions

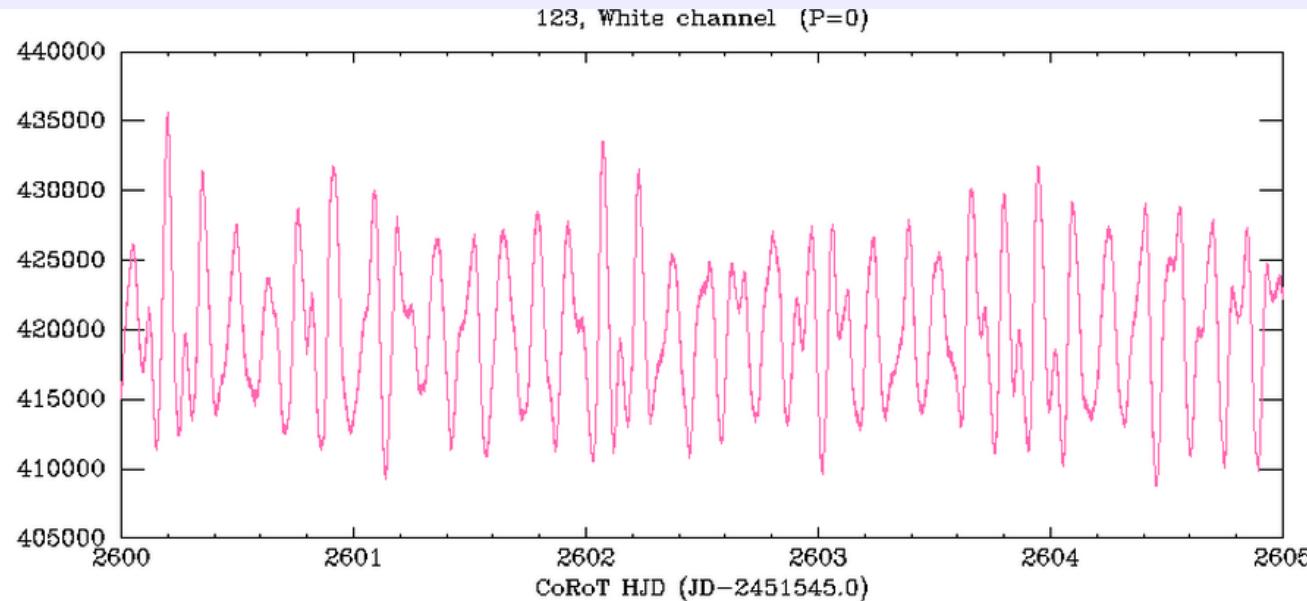
Light curve of [CoRoT 123](#) in [White](#) (points with status=0)



[Postscript Figure](#)

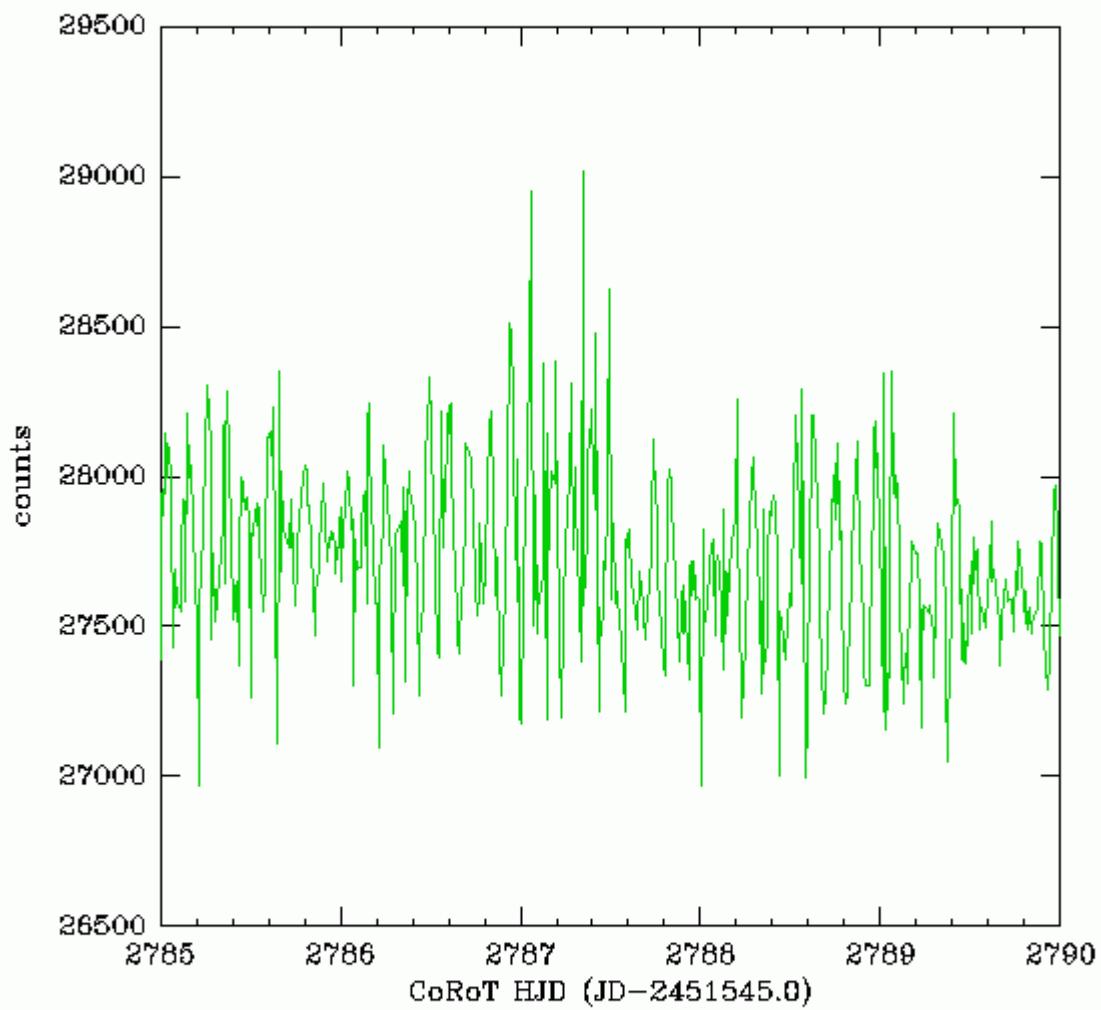
[Data as a Table](#)

Adapt Plot	Band <input type="button" value="White"/>	x cuts: <input type="button"/> <input type="button"/> xlog <input type="checkbox"/> Bitmap size: 900x400
	P <input type="button" value="0"/>	y cuts: <input type="button"/> <input type="button"/> ylog <input type="checkbox"/> <input type="button" value="Adapt the plot"/>



CoRoT 100445224 Light Curve in red, green, blue (P=0) (points with status=0)

100445224, Green channel (P=0)



Different colors

[Postscript Figure](#)

[Data as a Table](#)

Adapt Plot

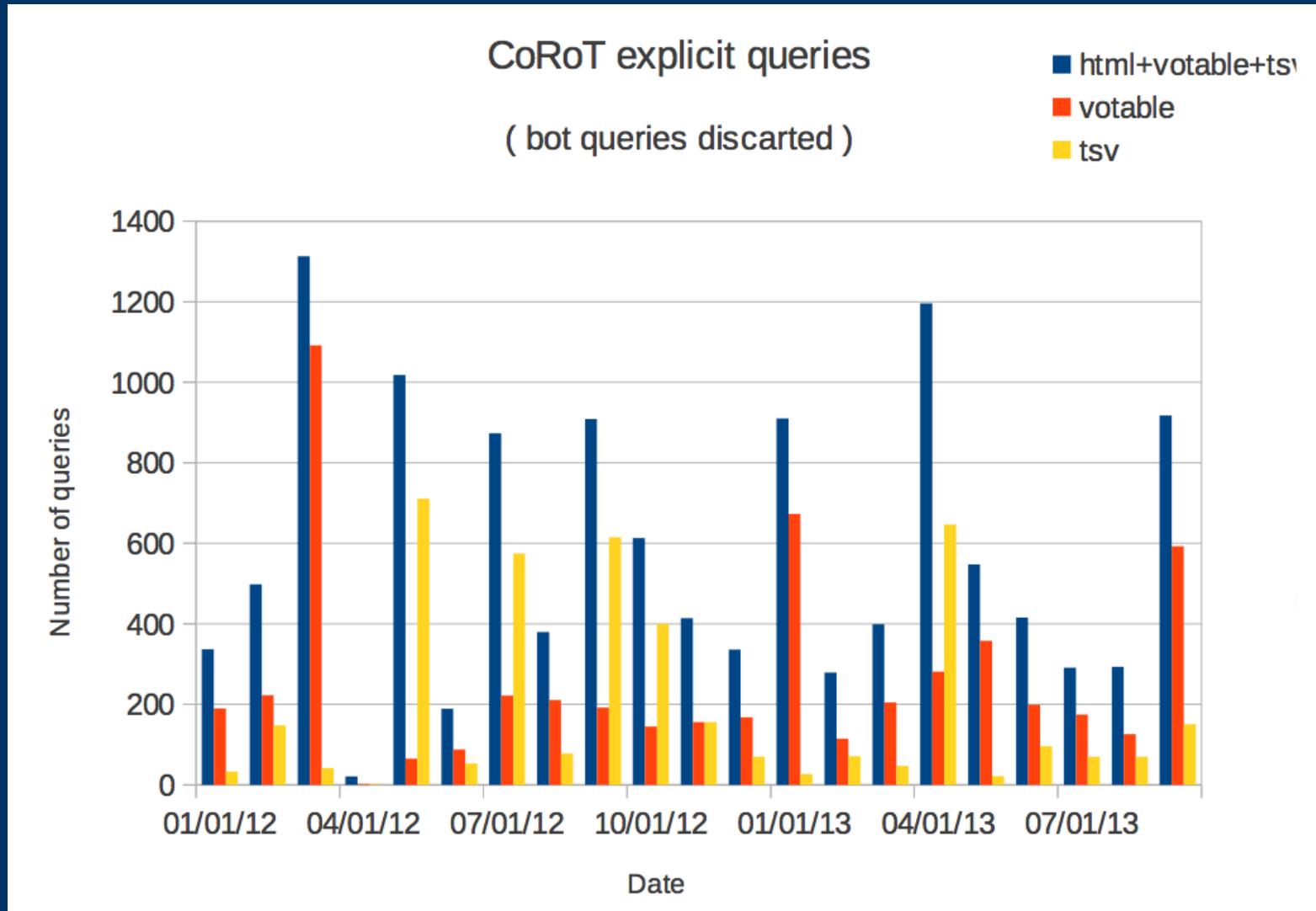
Band

x cuts: xlog Bitmap size:

P

y cuts: ylog

Some stats



CDS rôle in Post-exploitation

- Project continues producing data
- The CDS will:
 - Continue data diffusion as currently (N2)
 - Design solutions for N3 data diffusion (depends on data evolution)
 - Propose tools for production of added-value data (N3)
 - Include relevant CoRoT catalogs (or follow-up) missing in VizieR
 - Explore advanced solutions for diffusion of time-series (VO standards)

CDS rôle in Post-exploitation

- N2: similar content to current data, some additional data in headers and windescriptors
=> new columns
- N3:
 - Added value data (classif., periods)
=> new columns
 - Associated data:
 - Stars:thumbnails, links to GAUDI, EXODAT? TBD
 - Instrument: housekeeping (Tccd, V, ...)
 - => new columns with graphs/links to HK
 - (At the moment no such data in VizieR)

CDS rôle in Post-exploitation

- Tools for producing added value data:
CDS Table Fusion tools

VizieR Result Page

Show the target form
Show constraint information

[B/corot/exo](#) CoRoT observation log Release 13 (CoRoT, 2009-2013) [ReadMe+ftp](#)

Stars observed in the exoplanet detection program. (150258 rows)

[J/A+A/506/491/tablea1](#) Eclipsing binary candidates in Corot-IRa01 field (Carpano+, 2009) [ReadMe+ftp](#)

Eclipsing binary candidates found in IRa01 2009A&A...506..491C (145 rows)

DEJ2000 "d:m:s"	RAJ2000 "h:m:s"	Img	CoRoT	RAJ2000 deg	DEJ2000 deg	Per d	e d	Epoch d	e d
-00 58 07.4	06 43 48.35		102707895	100.95144	-00.96872	5.78390	5.00e-04	136.85500	8.00e-03
-00 58 07.4	06 43 48.35		102707895	100.95144	-00.96872	5.78390	5.00e-04	136.85500	8.00e-03
-01 12 35.0	06 47 30.34		102855348	101.87640	-01.20972	5.42500	2.50e-03	136.77300	1.30e-02
-01 48 45.2	06 46 39.57		102823343	101.66489	-01.81256	7.44690	1.30e-03	138.54600	2.00e-03
-01 19 35.5	06 46 44.20		102826074	101.68416	-01.32652	48.57814	2.87e-03	140.23557	1.87e-03

Work plan to end 2013

- Project:
 - List final products + HK => Keep CDS in the loop
- CDS + Project
 - **Feedback 1:** discuss data access/presentation in VizieR: simple treatments for LC thumbnails/plots?
 - **Feedback 2:** check for missing corot catalogs in VizieR / list relevant, required catalogs
 - => Action?
 - Discuter/implémenter canal de diffusion IAS=>CDS pour HK data (ce canal existe seulement pour N2)
 - Explorer la synchronisation VizieR/ Exodat (oct. 2013)