How to add a lightcurve in AOTS

1 Login

When navigating to http://a15.astro.physik.uni-potsdam.de, you will end on the landing page where the publicly available projects are displayed. From there you can login by clicking on "LOG IN" in the top right corner.

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127.0.0.1:8000/w/projects/ × +					
← → C ③ 127.0.0.1:8000/w/projects/				२ 🛧 🥏	۰ 🐌
AOTS			ODCS	PROJECTS	ê
PROJECTS					LOG IN
Public projects					RESET PASSWC
	The 500Pc sd catalog	The hot subdwarf catalog			
	The complete hot subdwarf catalog based on a photometric selection in GAIA DR2	The complete hot subdwarf catalog based on a photometric selection in GAIA DR2			
	contact; iorisvos (at) uni-potsdam.de	ource code: https://github.com/vosjo/AOTS			
127.0.0.1:8000/accounts/login/?next=/w/projects/					•

Figure 1: Landing page

This will bring you to the login page where you can log in with the user name and password you received.



Figure 2: Login page

Note: By hovering over "LOG IN" you also can reset or change your password by selecting "RESET PASSWORD" or "CHANGE PASSWORD", respectively.

2 Uploading a lightcurve

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After login you will be redirected to the AOTS landing page. Here you can now select the project that you want to work on by clicking on the name of the project. For example we want to add a spectrum to the "The hot subdwarf catalog".



Figure 3: Landing page after login

You will end up on the systems index page that lists all systems that are part of this project. To add a spectrum, navigate to "OBSERVATIONS" \rightarrow "LIGHT CURVES" in the top navigation bar:

AOTS: The hot subdwarf catalog			ODCS	PROJECTS	🗙 SYSTEMS	OBSERVATIONS	ANALYSIS	e admin			
SY	STEMS: INDEX (THE HOT SUBE	OWARF CATAL	OG)					SPECTRA			
							(LIGHT CURVES)		-
-	5how 50 • entries Edit Tags Change Status							OBSERVATORIES			
	Name	RA	Dec	Class	G-mag	Nobs	Datasets	Tags		Status ≬	
	SB937	00:00:04.03	-33:35:19.16		14.23	17/0/0		GAIA catalog			
	PHL615	00:00:05.19	-17:08:51.45	sdO	16.8	4 / 0 / 0		GAIA catalog SPEC	catalog		
	PG2357+174	00:00:15.76	+17:38:52.96	sdB	16.55	18/0/0		GAIA catalog SPEC	catalog		
	UVEXJ000016.27+603246.3	00:00:16.27	+60:32:46.32		16.57	7/0/0		GAIA catalog			
	HS2357+2201	00:00:18.40	+22:18:02.96	sdB	14.24	22/1/0		GAIA catalog SPEC	catalog		
	MCT2357-3331	00:00:20.09	-33:14:59.49	sdB	16.5	9/0/0		GAIA catalog SPEC	catalog		
	SDSSJ000028.22+322727.1	00:00:28.22	+32:27:27.22		15.87	20/0/0		GAIA catalog			
	J000042.3+362809	00:00:42.31	+36:28:09.43		18.8	5/0/0		GAIA catalog			
	J000043.8+802855	00:00:43.80	+80:28:55.48		18.51	3 / 0 / 0		GAIA catalog			
	J000053.4+465337	00:00:53.37	+46:53:37.08		16.95	4 / 0 / 0		GAIA catalog			
	PG2358+107	00:01:06.73	+11:00:36.32	sdB	13.61	22/1/0		GAIA catalog SPEC	catalog		
	SDSSJ000111.65+000342.6	00:01:11.65	+00:03:42.69	sdOB	19.27	10/0/0		SPEC catalog			
	SDSSJ000112.66+325701.0	00:01:12.66	+32:57:01.14		16.78	13/0/0		GAIA catalog			
	BPSCS22957-23	00:01:32.25	-05:19:17.77	sdB	13.51	22 / 0 / 0		SPEC catalog			
	MCT2359-3556	00:01:37.64	-35:39:53.46	sdB	14.48	17/0/1		GAIA catalog SPEC	catalog		
	Name	RA	Dec	Class	G-mag	Nobs	Datasets	Tags		Status	
	Showing 1 to 50 of 41,239 entries						1	Previous 1 2 3	4 5 825	Next	

Figure 4: System page

At the top of this page is an upload form where you can select one or more light curves in fits format to upload to the database.

HjD System Instrument Exposure time Cadence 2458529.67065665 TIC 309658435 (79.04385 - 60.96022) TESS Photometer @ TESS 120 120 2458339.23531726 TIC 30951753 (324.68417 - 37.60418) TESS Photometer @ TESS 120 120 HJD System Instrument Exposure time Cadence	Action
458529.67065665 TIC 309658435 (79.04385 - 60.96022) TESS Photometer @ TESS 120 120 458339.23531726 TIC 320951753 (324.68417 - 37.60418) TESS Photometer @ TESS 120 120 HJD System Instrument Exposure time Cadence	î
458339.23531726 TIC 320951753 (324.68417 - 37.60418) TESS Photometer @ TESS 120 120 IJD System Instrument Exposure time Cadence	1
JD System Instrument Exposure time Cadence	
	Action
Showing 1 to 2 of 2 entries Previor	is 1 Next

Figure 5: Light curve page with upload form

AOTS tries to extract all necessary data automatically from the fits headers. See Sect.3 for a list of all recognized keywords.

After pressing the upload button the light curve will be processed by AOTS and a confirmation notice for the upload is displayed at the top of this page to confirm that everything went well. The newly uploaded spectrum will be added to the Table below the form.

LIGHT CURVES					
light curve, added to new Sy:	item TIC 286099192: 140.78 2.70	Add new light curves Browse No files selected. Upload			
HJD	System	Instrument	Exposure time	0 Cadence	+ Action
458529.67065665	TIC 309658435 (79.04385 -60.96022)	TESS Photometer @ TESS	120	120	Ξ.
458339.23531726	TIC 320951753 (324.68417 -37.60418)	TESS Photometer @ TESS	120	120	Î
458529.67065665	TIC 286099192 (140.78461 2.70275)	TESS Photometer @ TESS	120	120	Î
HJD	System	Instrument	Exposure time	Cadence	Action
Showing 1 to 3 of 3 entries				Previous	1 Next



If you click on the "HJD" of the corresponding light curve, you will be taken to the light curve details page where you can check the added light curve. You can also check the associated system by clicking on the system name in the "System" column.



Figure 7: Light curve detail page

3 Recognized header keywords

The following light curve files are recognized by AOTS:

• TESS

For all other light curves the following fits header keywords are recognized:

Keyword	explanation
HJD, BJD, MJD, DATE-OBS	time at mid observation
OBJECT	object name
RA	right ascention in decimal degrees or in hours (hexadecimal)
DEC	declination in degrees, decimal of hexadecimal
INSTRUME	instrument
TELESCOP	telescope
EXPTIME	exposure time in seconds
OBSERVER	name of the observer