



Treasure Hunt

Rules

- 5 questions
- 4 Q 8 minutes + 1Q 10 minutes
- Answer revealed after each question.
- Scoring :
 - 1 point if you have the right answer for Q1, Q2, Q3 & Q4
 - 2 points for Q5.
 - 1 extra point if you are the first finding the answer to any question

PRIZES!

Question # 1

How many nova are there within 2' around the center of M31?

Question #2

Perform a colour-magnitude (K_s versus $(u-g)$) diagram of sources detected within SDSS and 2MASS catalogues around 15' of the center of NGC2129.

Perform a colour-

VizieR Catalogue Service

VizieR Server:

Row Selection

Cone Selection

Object Name:

RA:

Dec:

Radius:

All Rows

Maximum Row Count:

Column Selection

Output Columns:

Catalogue Selection

By:

Sub-Table D

Table List

- 6: V_139_sdss9
- 7: II_246_out
- 8: match(6,7)

Name	Count	Index	Group
J/A+A/522/A88			
J/AJ/141/97			
J/AJ/151/41			
J/ApJ/765/156	5545	85	Color Index Griz
J/MNRAS/450/3893	54145	1	SDSS DR10 catalog
J/PASP/120/1128	147526	1	Calibrated griz r
V/139	2846351	15	The SDSS Photom

75 / 1821 M

OK

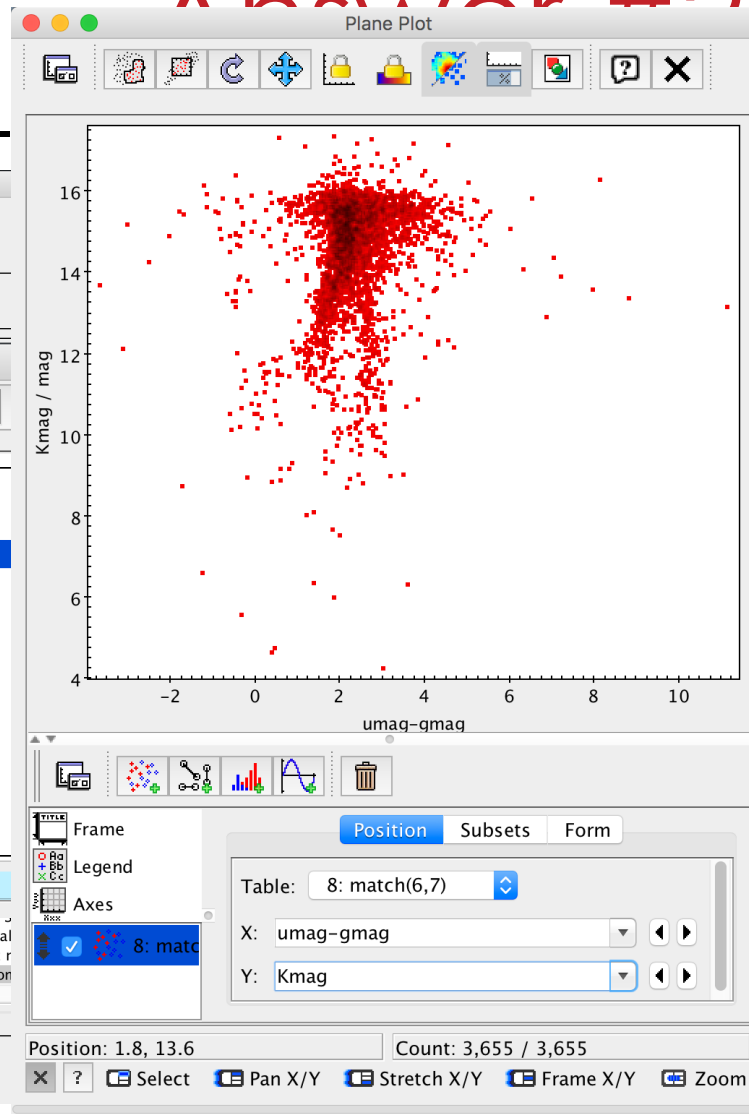


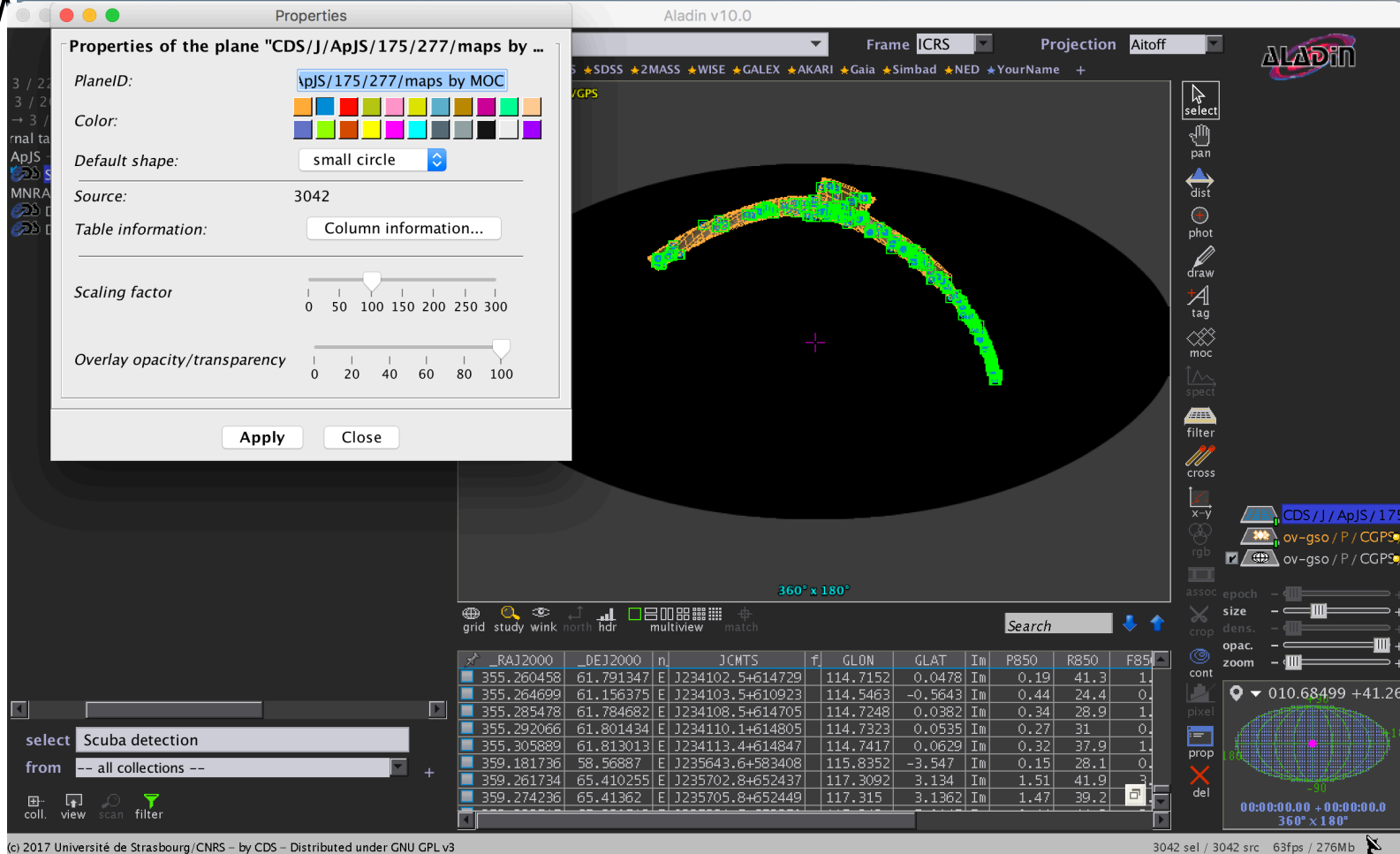
diagram of sources
around 15' of the

Question #3

How many Scuba submillimeter continuum **detections** are covered by the CGPS-VGPS **HI Gas-lines image** survey?

Answer #3

How many Scuba submillimeter continuum detections are covered by the



The screenshot shows the ALADIN v10.0 interface. A 'Properties' dialog box is open for the plane 'CDS/J/ApJS/175/277/maps by MOC'. The dialog shows the following settings:

- PlaneID: CDS/J/ApJS/175/277/maps by MOC
- Color: A color palette with various colors selected.
- Default shape: small circle
- Source: 3042
- Table information: Column information...
- Scaling factor: A slider set to 100.
- Overlay opacity/transparency: A slider set to 100.

The main window displays a map of the sky with a curved arc of green and yellow points. The map is titled 'Aladin v10.0' and shows various astronomical data layers. The bottom of the window features a table of data points:

_RAJ2000	_DEJ2000	n	JCMTS	f	GLON	GLAT	Im	P850	R850	F850
355.260458	61.791347	E	J234102.5+614729	114.7152	0.0478	Im	0.19	41.3	1.	
355.264699	61.156375	E	J234103.5+610923	114.5463	-0.5643	Im	0.44	24.4	0.	
355.285478	61.784682	E	J234108.5+614705	114.7248	0.0382	Im	0.34	28.9	1.	
355.292066	61.801434	E	J234110.1+614805	114.7323	0.0535	Im	0.27	31	0.	
355.305889	61.813013	E	J234113.4+614847	114.7417	0.0629	Im	0.32	37.9	1.	
359.181736	58.56887	E	J235643.6+583408	115.8352	-3.547	Im	0.15	28.1	0.	
359.261734	65.410255	E	J235702.8+652437	117.3092	3.134	Im	1.51	41.9	3.	
359.274236	65.41362	E	J235705.8+652449	117.315	3.1362	Im	1.47	39.2	1.	

The bottom of the interface shows a search bar and a table of search results. The search results table is as follows:

select	from
Scuba detection	-- all collections --

The bottom status bar shows: (c) 2017 Université de Strasbourg/CNRS - by CDS - Distributed under GNU GPL v3. 3042 sel / 3042 src 63fps / 276Mb

Question #4

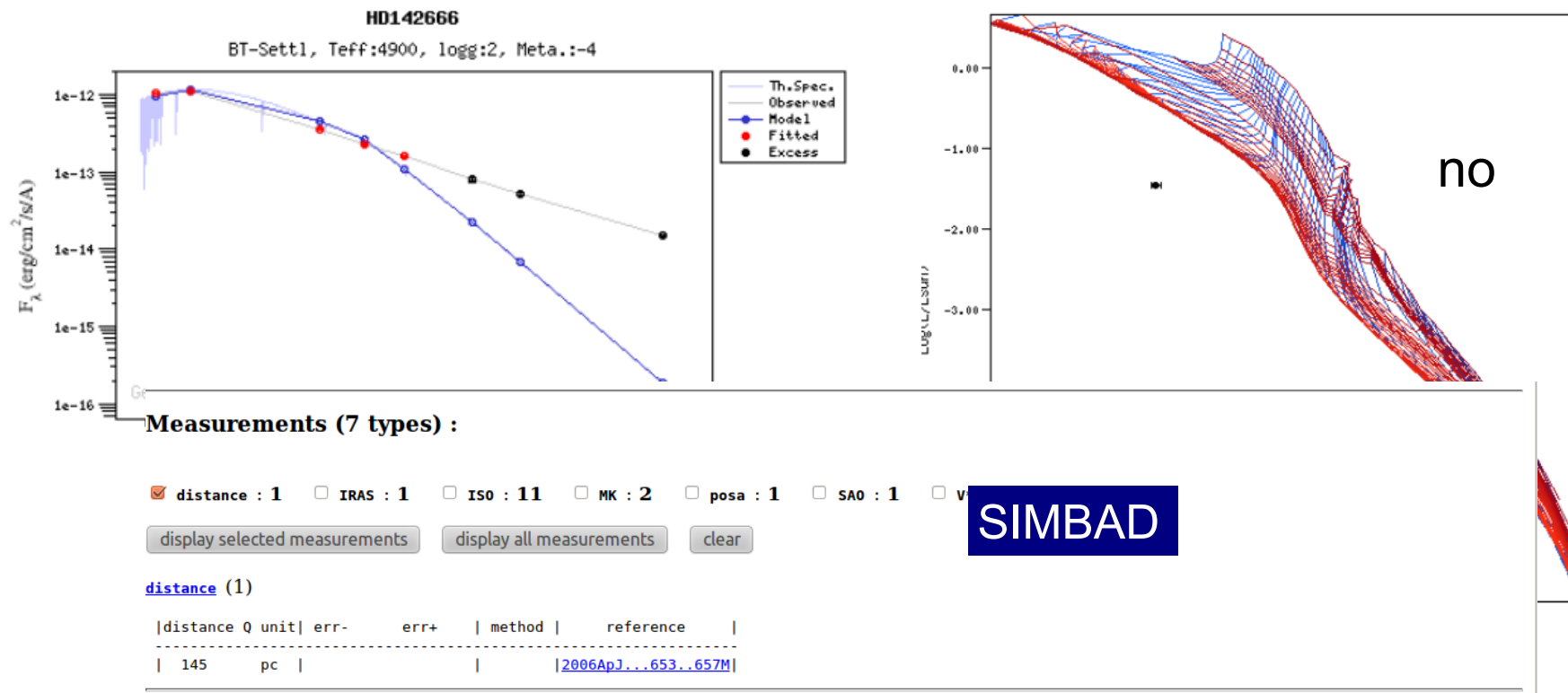
Does HD142666 show infrared excess?

Can the star be placed at a distance of 10 pc?

Answer #4

Does HD142666 show infrared excess?

Can the star be placed at a distance of 10 pc?



Question #5

There are probably 2 white dwarfs moving with the pleiades.
Find their positions.

use ADQL

hint: assume average parallax is 7mas