

DC2013 results analysis; comparison with the SDSS  
published data for small groups of patches (20 out of 13680)

6/02/2014

CCIN2P3, Lyon

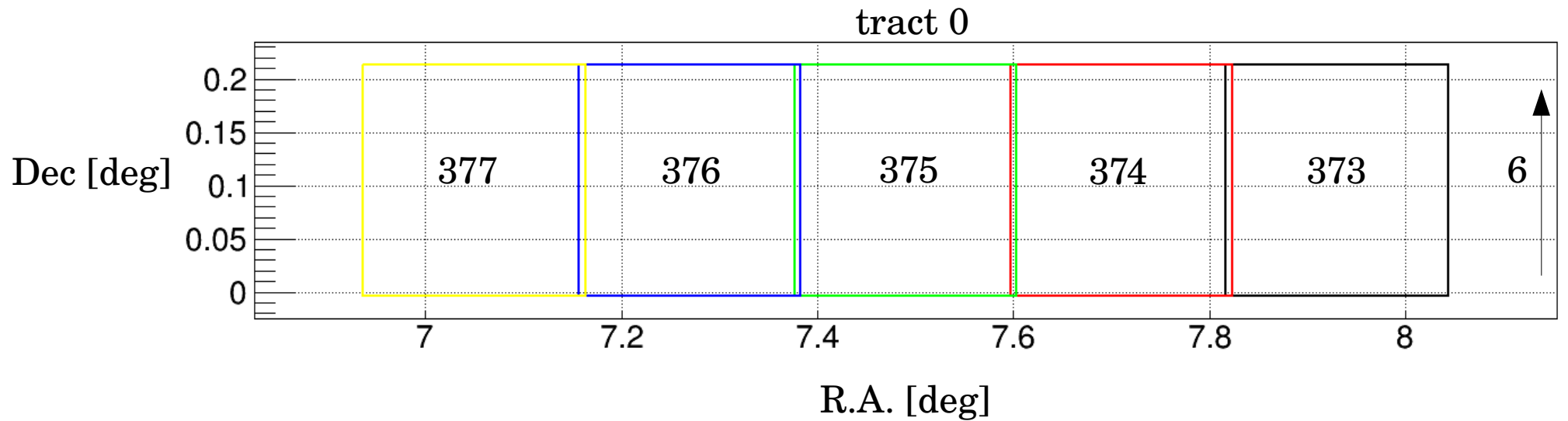
LSST computing meeting

Bogdan Vulpesu

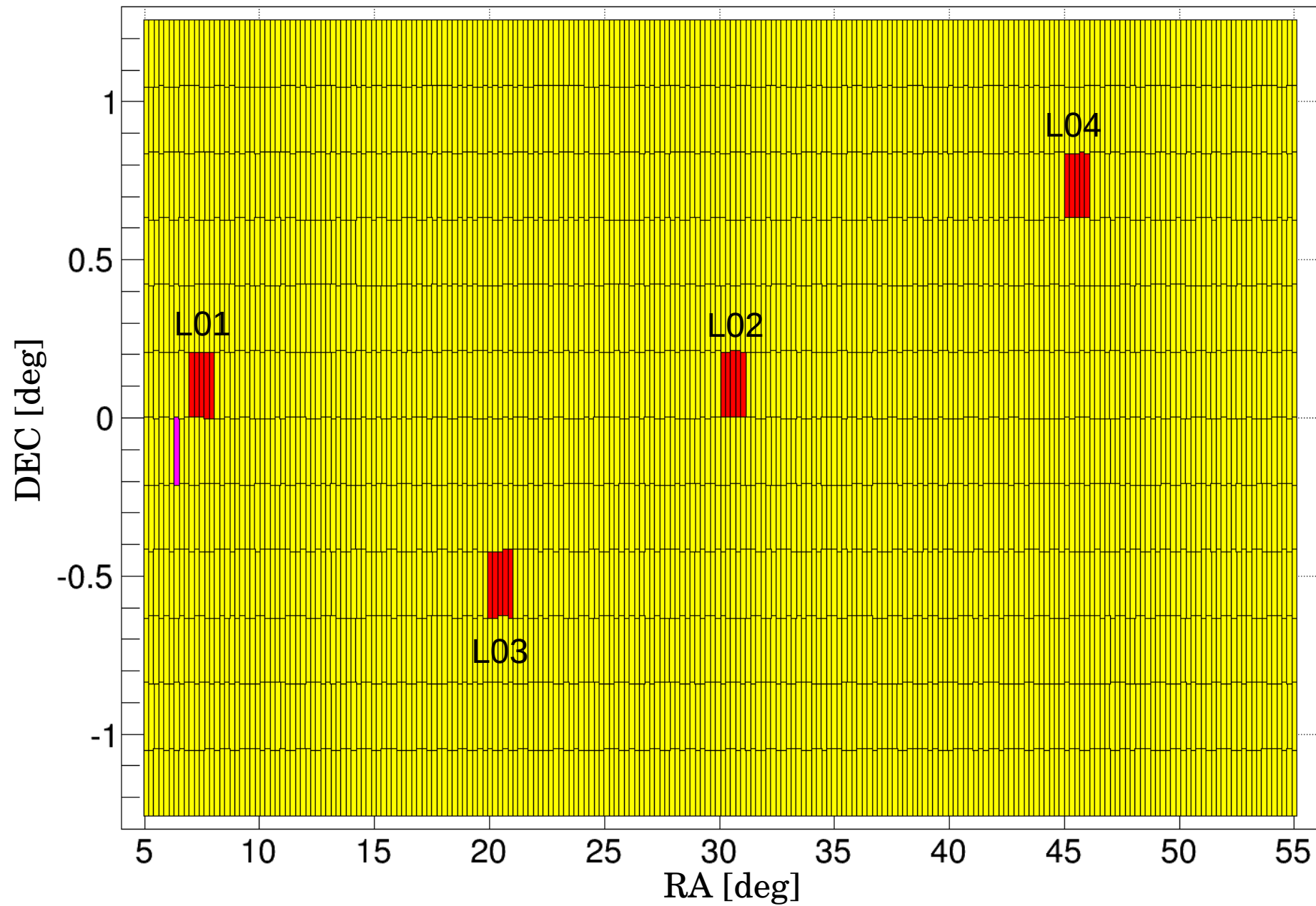
LPC Clermont-Ferrand

## Patches for analysis (L01)

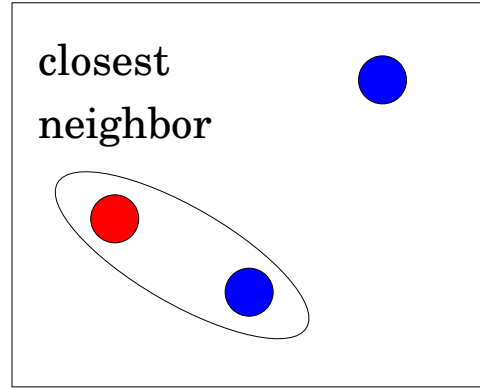
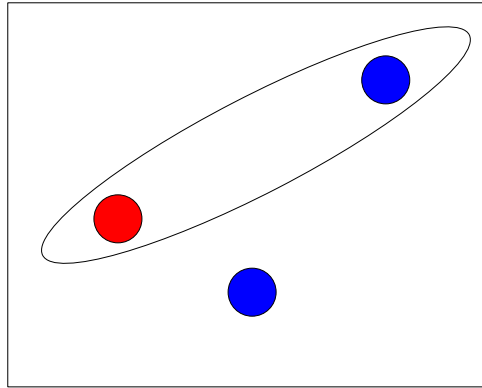
deepCoaddId	tract	patch	filterId	filterName
24576050	0	375,6	2	r
24707122	0	377,6	2	r
24641586	0	376,6	2	r
24510514	0	374,6	2	r
24444978	0	373,6	2	r



# DC2013 @ CCIN2P3 patches filter "r"



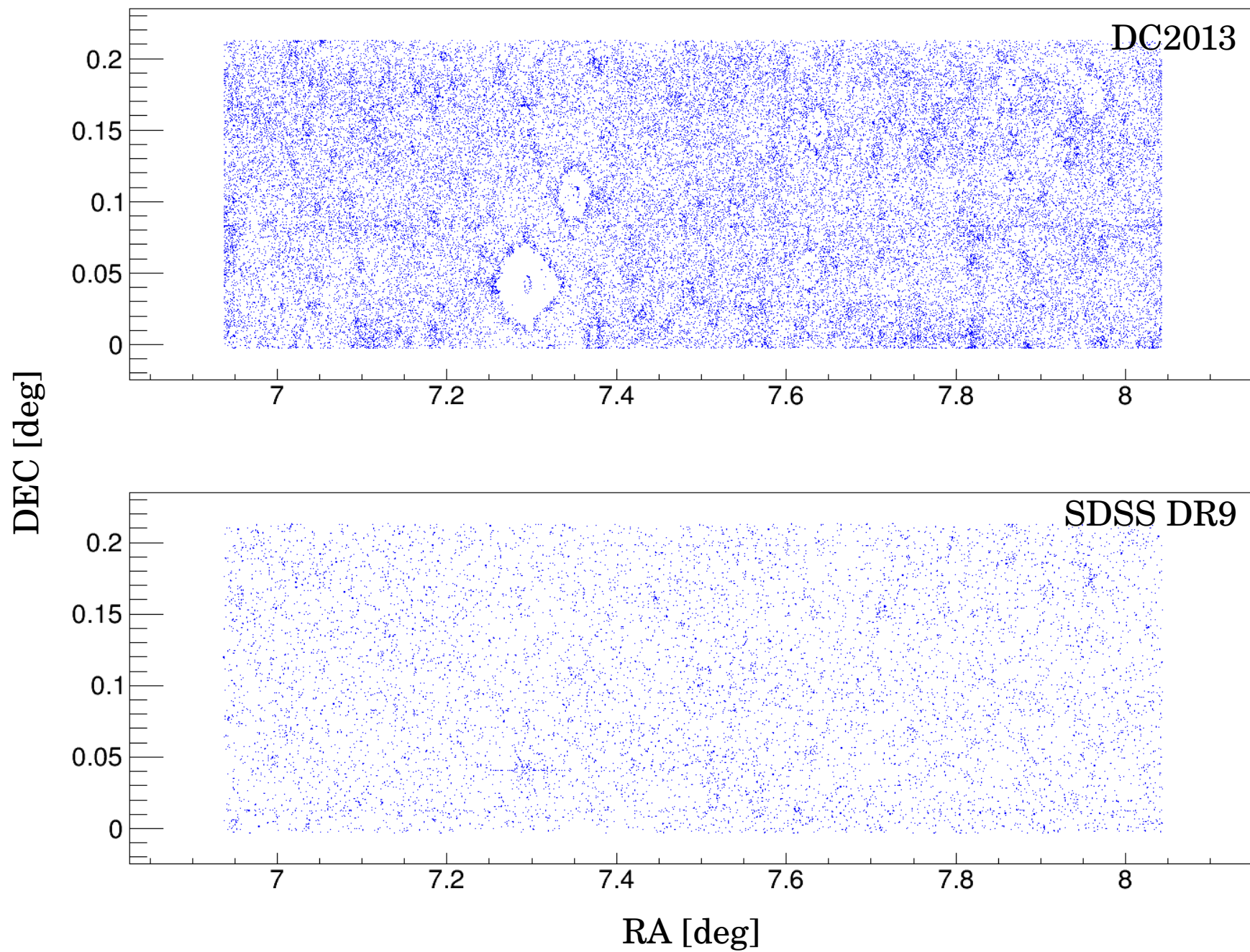
# Matching results, SDSS photo objects vs. DC2013 sources



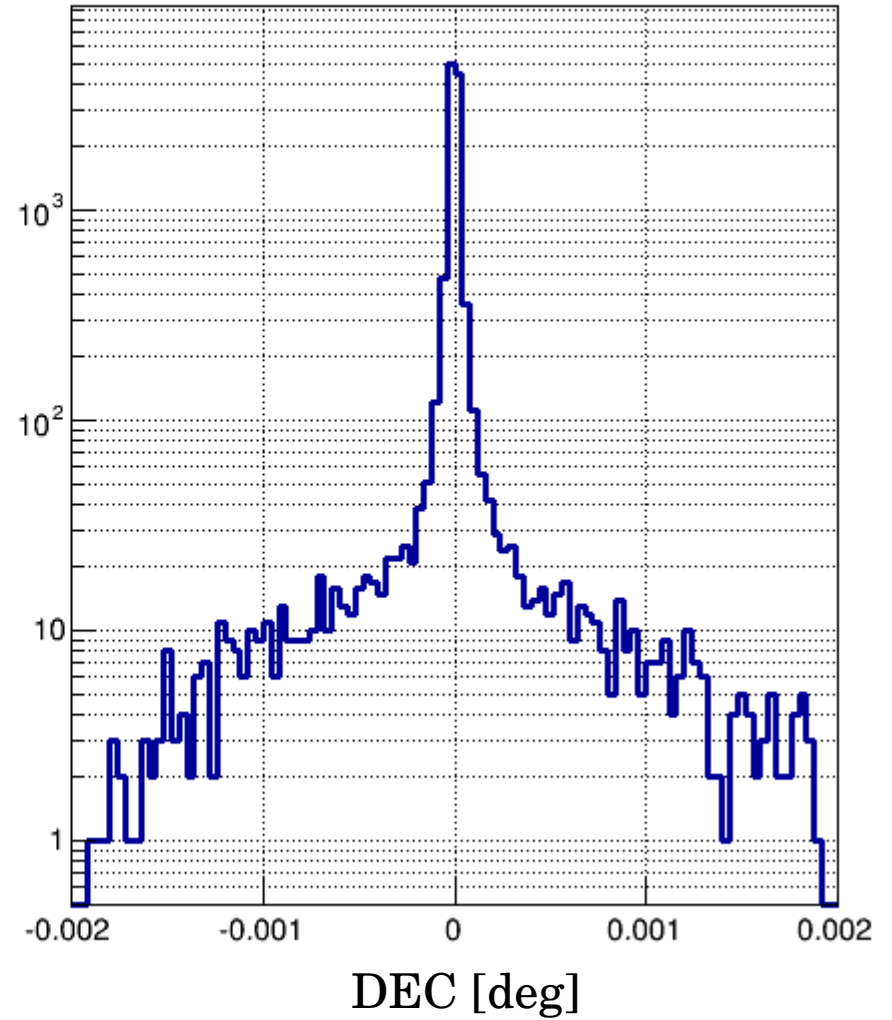
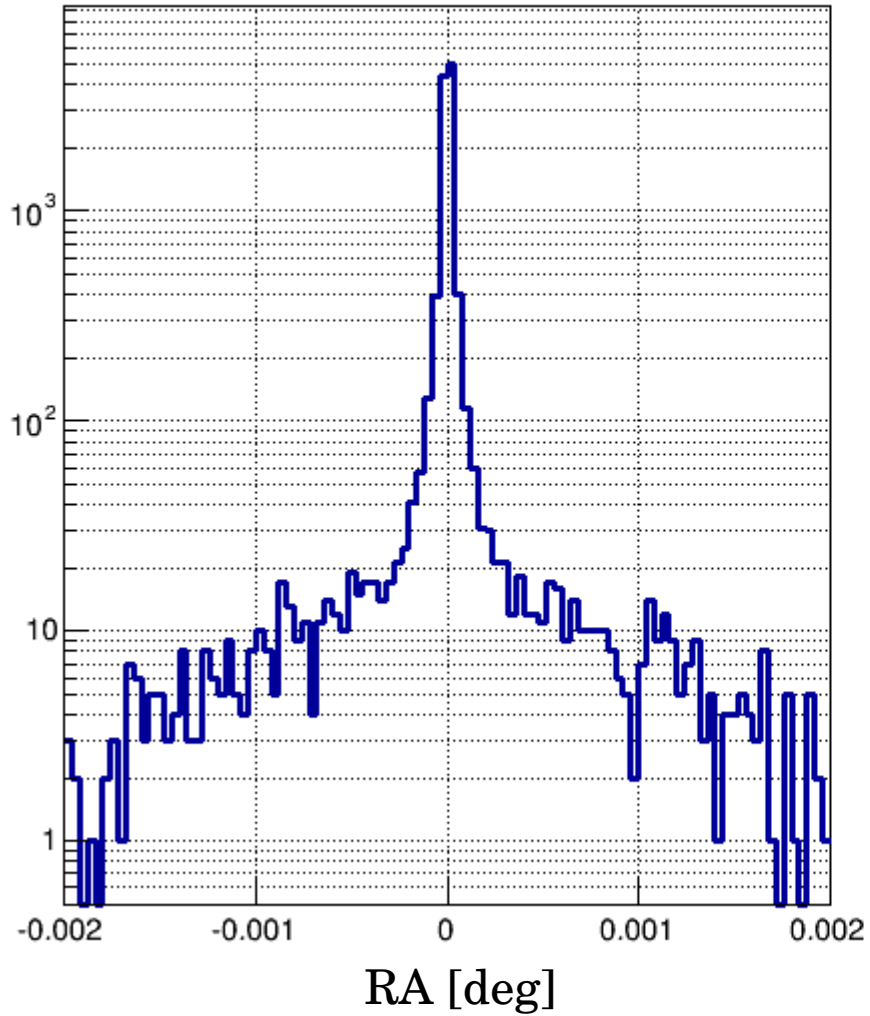
● SDSS (main loop)  
● DC2013

Group	DC2013	DR9/matched	DR7/matched
L01	55909	77151 / 11406	6537 / 5990
L02	43707	90491 / 10015	7042 / 6311
L03	27902	98781 / 8234	5924 / 5159
L04	47563	137916 / 9964	10680 / 6762

# Group L01



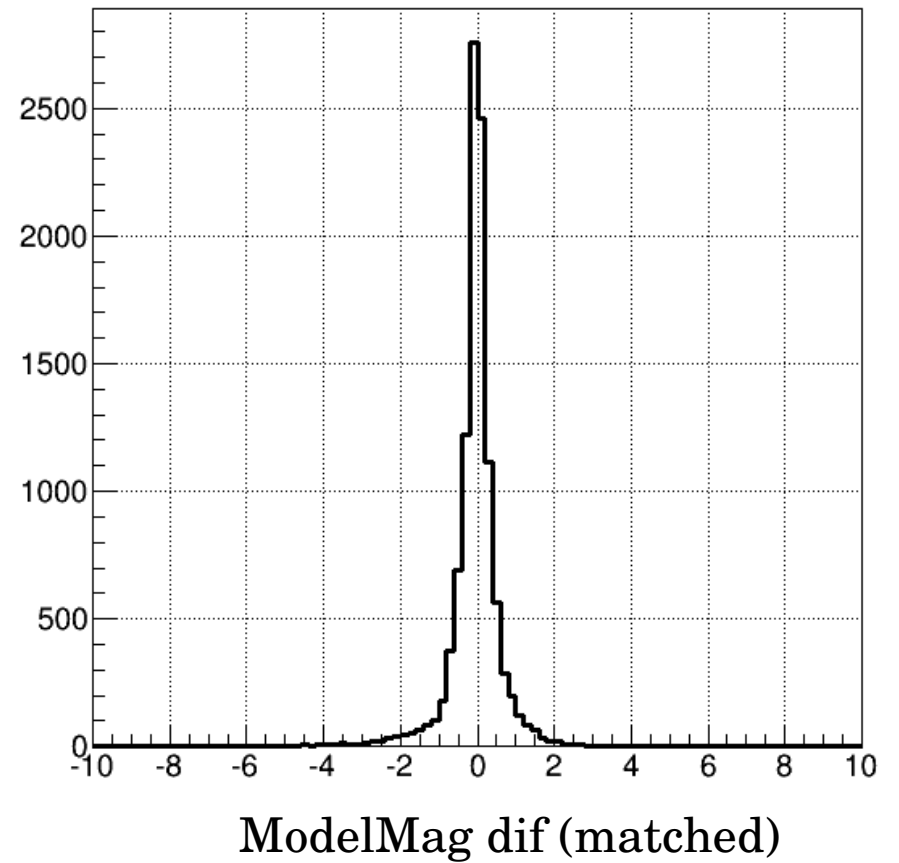
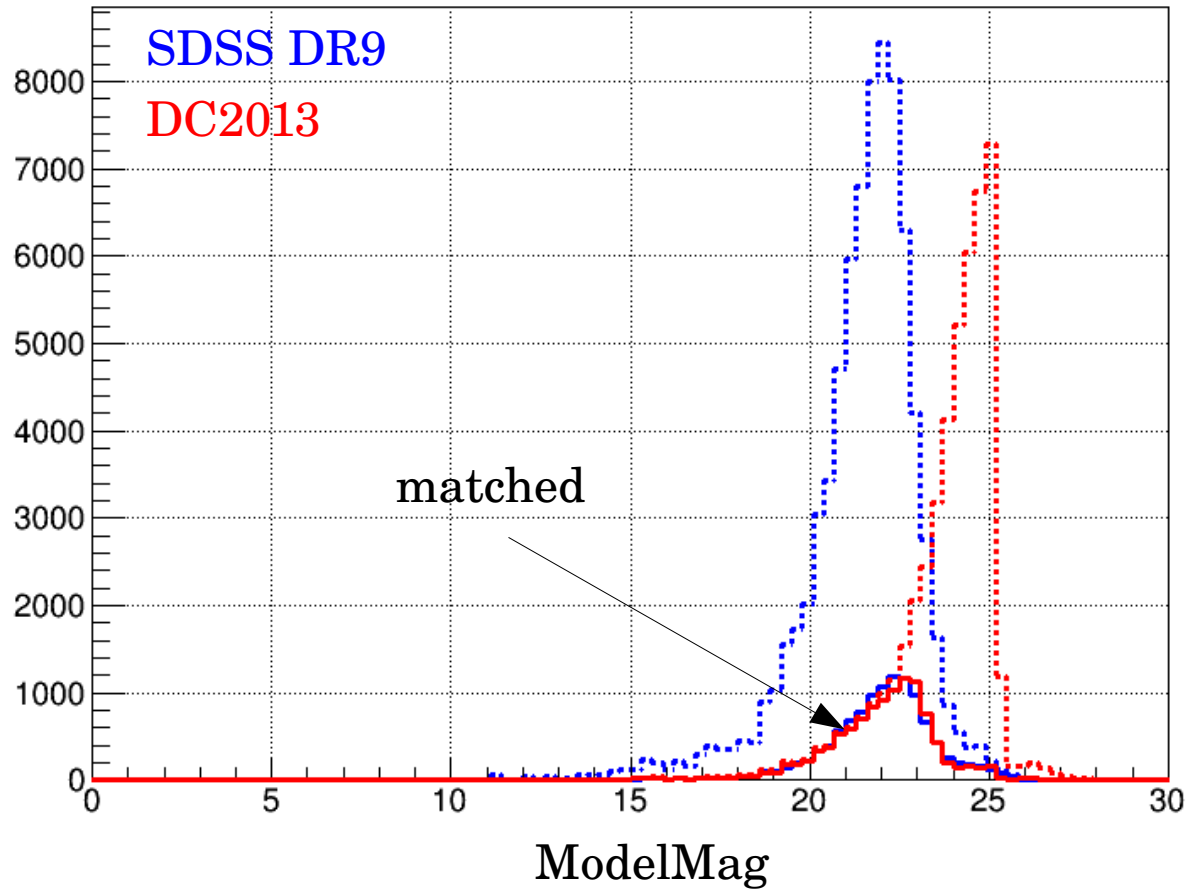
# Group L01: RA/DEC match distributions (with DR9)



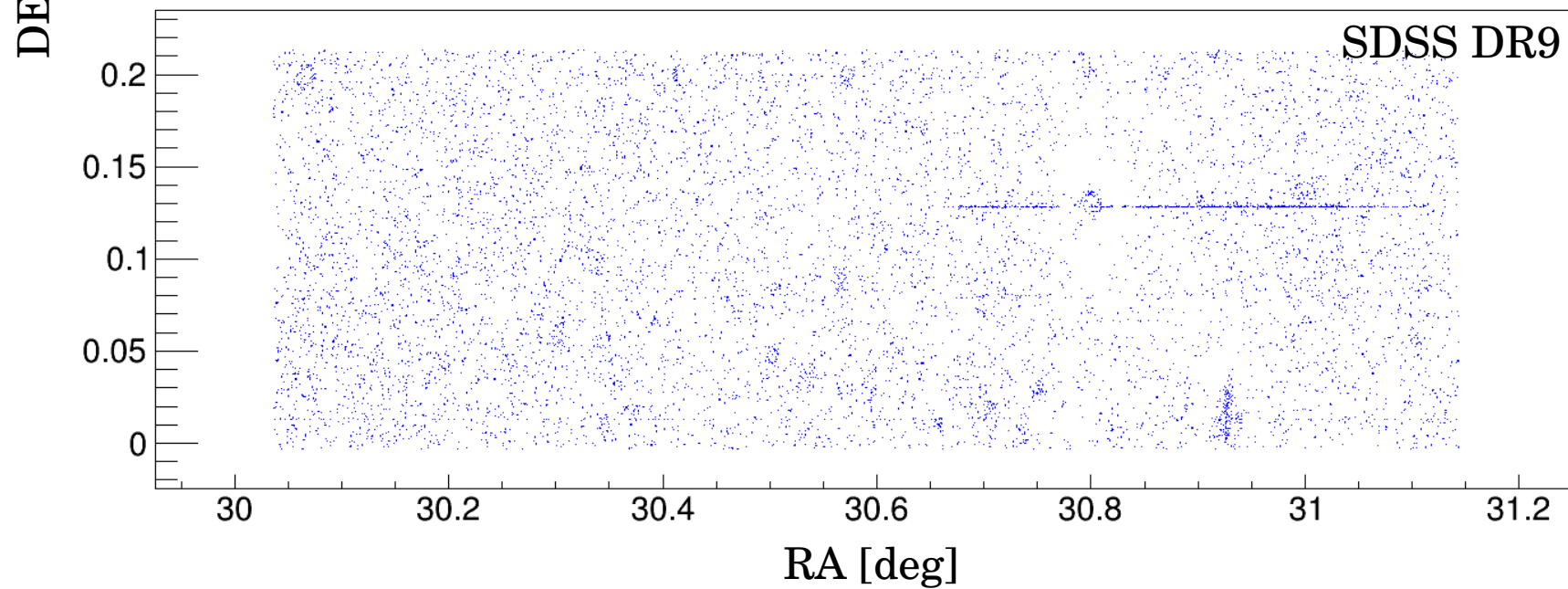
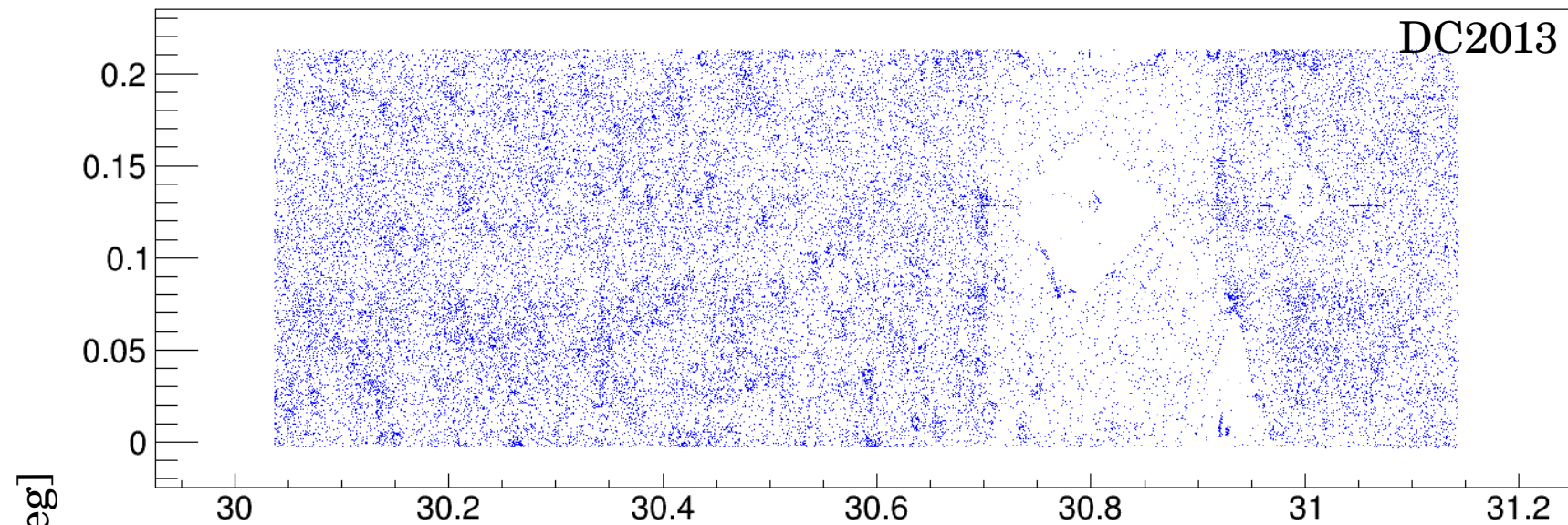
0.001 deg = 3.6 arcsec

# Magnitude (modelMag in “r”)

$$m = -2.5 \log(\text{flux}) + m_0 \quad , \quad m_0 \approx 27$$

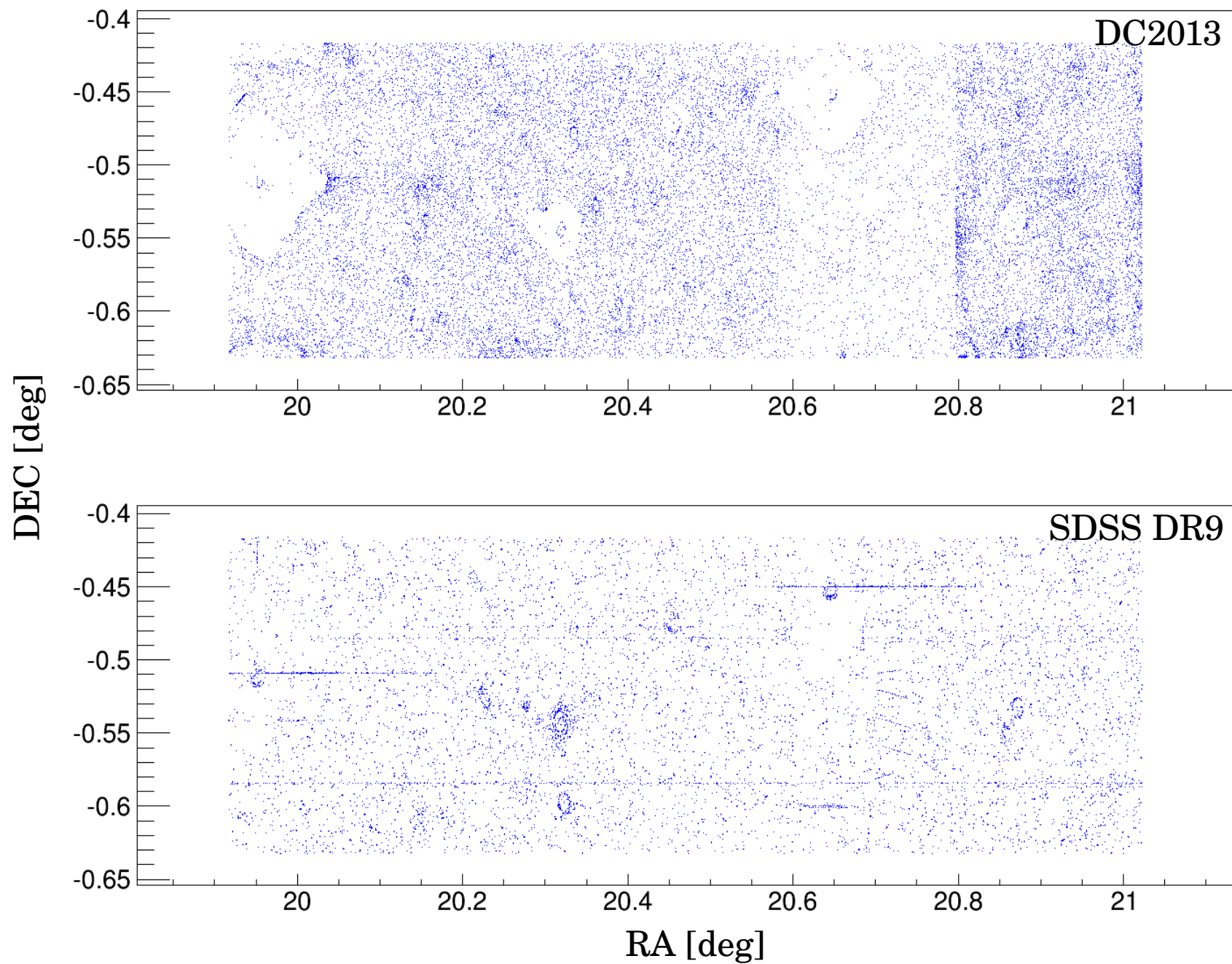


# Group L02

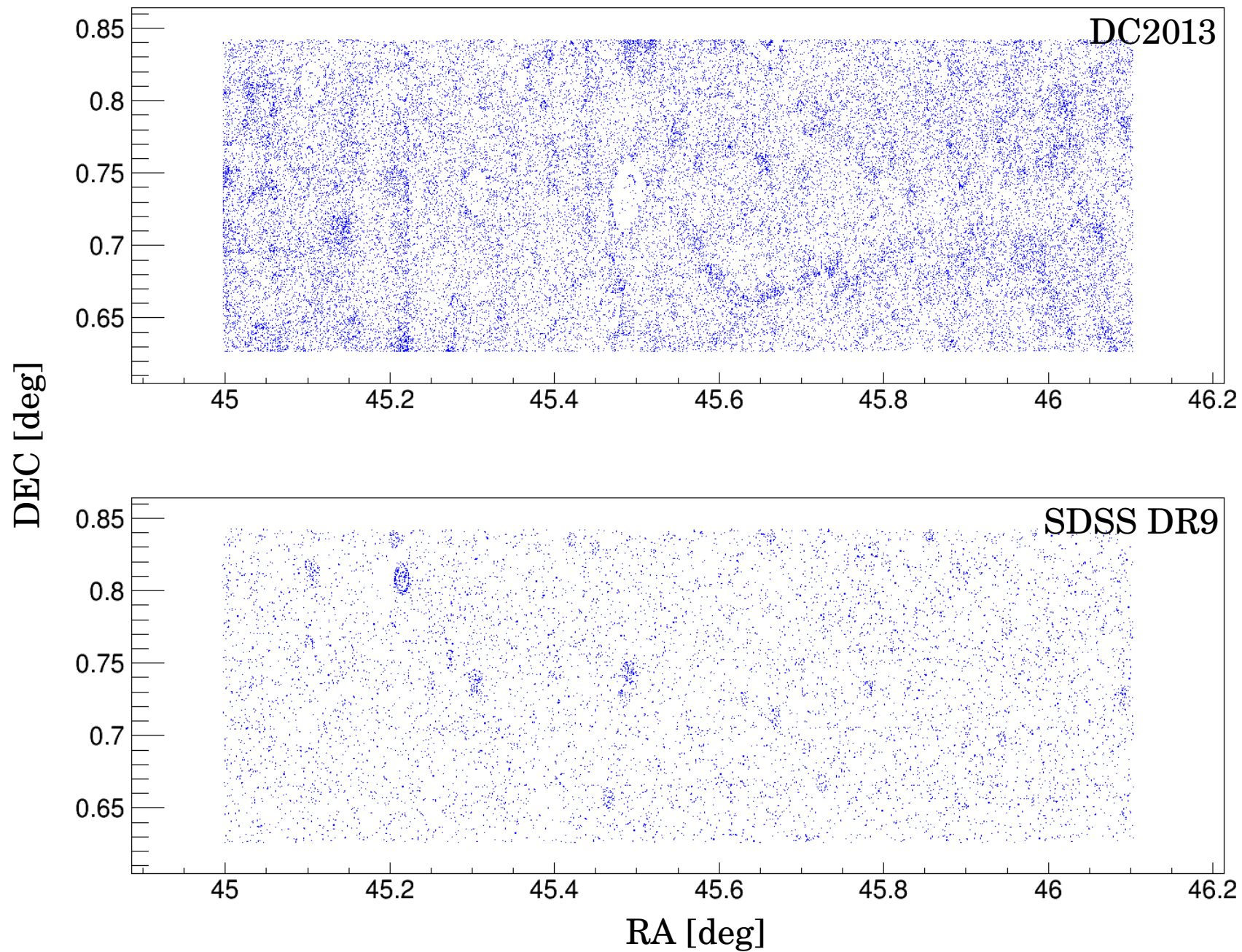




# Group L03



# Group L04



Queries on the CasJobs server: <http://skyserver.sdss3.org/casjobs/SubmitJob.aspx>

SDSS Query / CasJobs

submitting a query

Help Tools Query History MyDB Import Groups Output Profile Queues SkyServer Logout bogdan

Context Table (optional) Task Name

DR9 MyTable\_1 My Query

Samples Recent Clear Syntax Plan Quick Submit

```
1 SELECT * FROM PhotoObj WHERE ra BETWEEN 6.936645 AND 7.16324 AND dec BETWEEN -0.003245 AND 0.213125
```

SDSS Query / CasJobs

MyDB

results are stored in MyDB

'My Query' Details

Resubmit Job

JobID	TaskName	Context	Queue	Submitted	Started	Finished	Status
4689445	My Query	DR8	500	1/31/2014 4:38:37 AM	1/31/2014 4:38:50 AM	1/31/2014 4:38:56 AM	Finished

Executed on Rows Message

DR8\_Long 16747 Query Complete

Query

```
SELECT * into mydb.MyTable_0 from PhotoObj WHERE ra BETWEEN 6.936645 AND 7.16324 AND dec BETWEEN -0.003245 AND 0.213125
```

Contact v3\_8\_6

# Output in tables in MyDB



SDSS Query / CasJobs

Help Tools Query History MyDB Import Groups Output Profile Queues SkyServer Logout bogdan

MyDB

## Bogdan Vulpesu 's MyDB

48,056 kB of 500,000 kB used

From this page you can get various information about the contents of both your MyDB and shared tables within your groups. Click the left table links to get information about a specific table, such as rows, columns or size. From the table pages you can also perform various table-specific tasks, such as:

- Download a table
- Mangage your group tables
- Rename a table
- Drop a table

*Data usage and row counts are approximate.  
There's always some overhead; even empty MyDB's take up space.  
Group tables published by other users do not count towards your MyDB size limit.*

**Contact**  
v3\_8\_6

	Rows	kB	Name
<input type="checkbox"/>	1,354	2,760	<a href="#">MyTable</a>
<input checked="" type="checkbox"/>	16,747	44,744	<a href="#">MyTable_0</a>

# View a table

The screenshot shows the SDSS Query / CasJobs interface. At the top, there is a navigation bar with links: Help, Tools, Query, History, MyDB, Import, Groups, Output, Profile, Queues, SkyServer, Logout, and a user name 'bogdan'. Below the navigation bar, there are dropdown menus for 'MyDB' and 'Local Only'. The main content area is titled 'MyTable\_0' and indicates it contains ~16,747 rows (~44,744 kB). There are several action buttons: Notes, Sample, Job, Plot, Download, Publish, Neighbors, Rename, and Drop. Below this is the 'Table Schema' section, which lists columns and their data types: objID (bigint [8]), skyVersion (tinyint [1]), run (smallint [2]), rerun (smallint [2]), camcol (tinyint [1]), field (smallint [2]), obj (smallint [2]), mode (tinyint [1]), and nCh (smallint [2]). A 'Notes' section below the schema shows 'No notes found' and a 'New Note' section with an 'Add Note' button.

SDSS Query / CasJobs

Help Tools Query History MyDB Import Groups Output Profile Queues SkyServer Logout bogdan

MyDB Local Only

**MyTable\_0**

Contains ~16,747 rows (~44,744 kB)

Notes Sample Job Plot Download Publish Neighbors Rename Drop

**Table Schema** type [size]

Column	Type	Size
objID	bigint	[8]
skyVersion	tinyint	[1]
run	smallint	[2]
rerun	smallint	[2]
camcol	tinyint	[1]
field	smallint	[2]
obj	smallint	[2]
mode	tinyint	[1]
nCh	smallint	[2]

**Notes**

No notes found

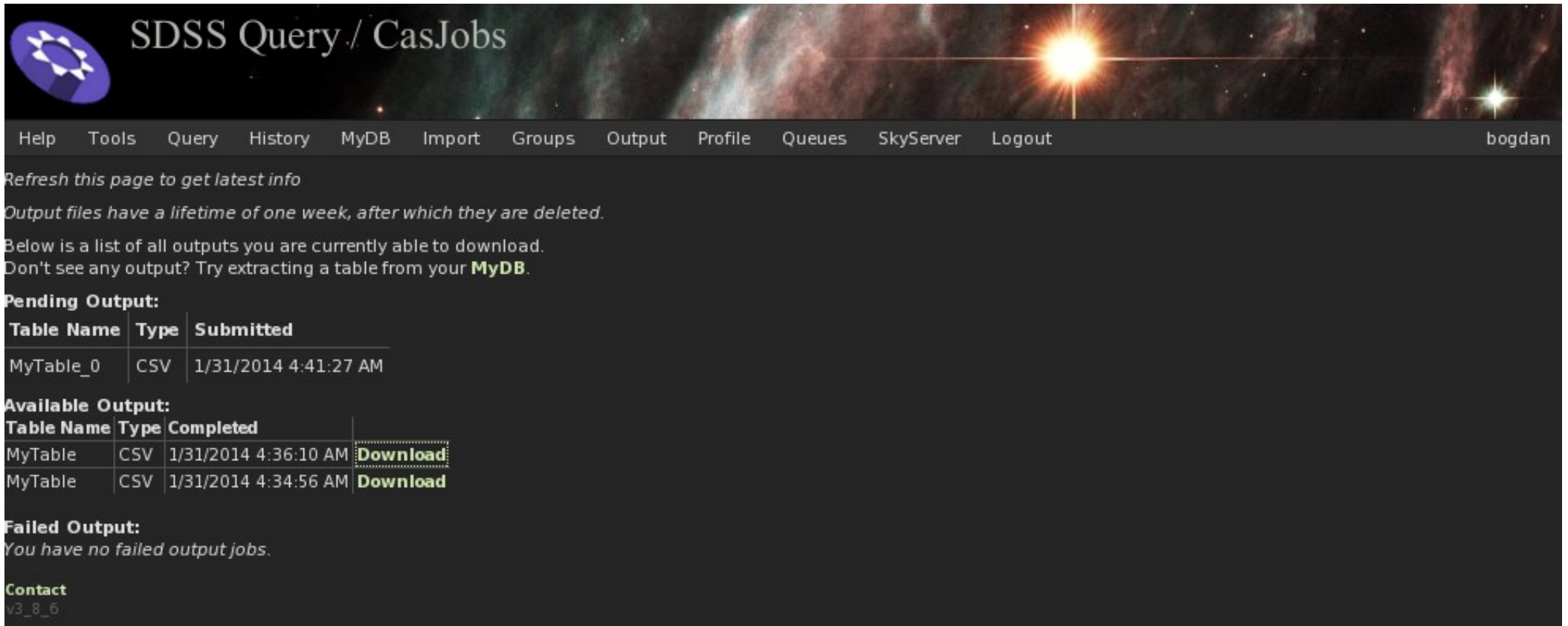
**New Note**

Add Note

Rows	kB	Name
<input type="checkbox"/>	1,354	2,760 MyTable
<input checked="" type="checkbox"/>	16,747	44,744 MyTable_0



# Download the table in CSV format



The screenshot shows the SDSS Query / CasJobs web interface. The header includes a logo and navigation links: Help, Tools, Query, History, MyDB, Import, Groups, Output, Profile, Queues, SkyServer, Logout, and the user name bogdan. Below the header, there are instructions and a list of output files.

Refresh this page to get latest info

Output files have a lifetime of one week, after which they are deleted.

Below is a list of all outputs you are currently able to download.  
Don't see any output? Try extracting a table from your **MyDB**.

**Pending Output:**

Table Name	Type	Submitted
MyTable_0	CSV	1/31/2014 4:41:27 AM

**Available Output:**

Table Name	Type	Completed	
MyTable	CSV	1/31/2014 4:36:10 AM	<a href="#">Download</a>
MyTable	CSV	1/31/2014 4:34:56 AM	<a href="#">Download</a>

**Failed Output:**

You have no failed output jobs.

**Contact**  
v3\_8\_6

Note: query submit page for Stripe82: <http://casjobs.sdss.org/CasJobs/SubmitJob.aspx>

## Query tools

Stripe82 <http://cas.sdss.org/stripe82/en/help/download/sqlcl/default.asp>

DR7 <http://cas.sdss.org/astro/en/help/download/sqlcl/default.asp>

DR8 <http://skyserver.sdss3.org/dr8/en/help/download/sqlcl/default.asp>

---> sqlcl.py problem with script execution timeout ...

CasJobs server (DR7,8,9,10) <http://skyserver.sdss3.org/casjobs/casjobscl.aspx>

```
java -jar casjobs.jar execute "select top 10 ra from photoobj"
```

```
Executing new query...
```

```
[ra]:Float
```

```
269.998612397523
```

```
269.997629628952
```

```
270.002698172971
```

```
270.000480304511
```

```
270.002238475651
```

```
270.000684491829
```

```
269.999839211621
```

```
270.004056897877
```

```
269.995417561051
```

```
269.996606521486
```

```
Query complete!
```

```
java -jar casjobs.jar tables
```

```
Fetching tables for 1742365372...
```

```
[Tables]:String
```

```
"MyTable_DR7"
```

```
"MyTable_DR8"
```

```
"MyTable_DR9"
```

```
"MyTable_DR10"
```

```
Table listing complete.
```