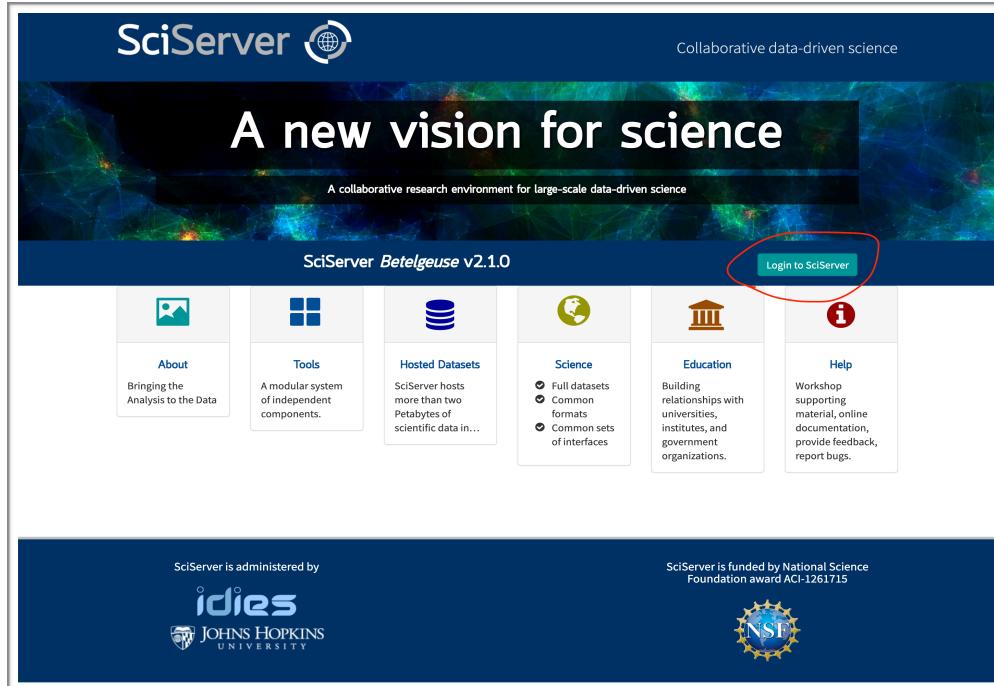
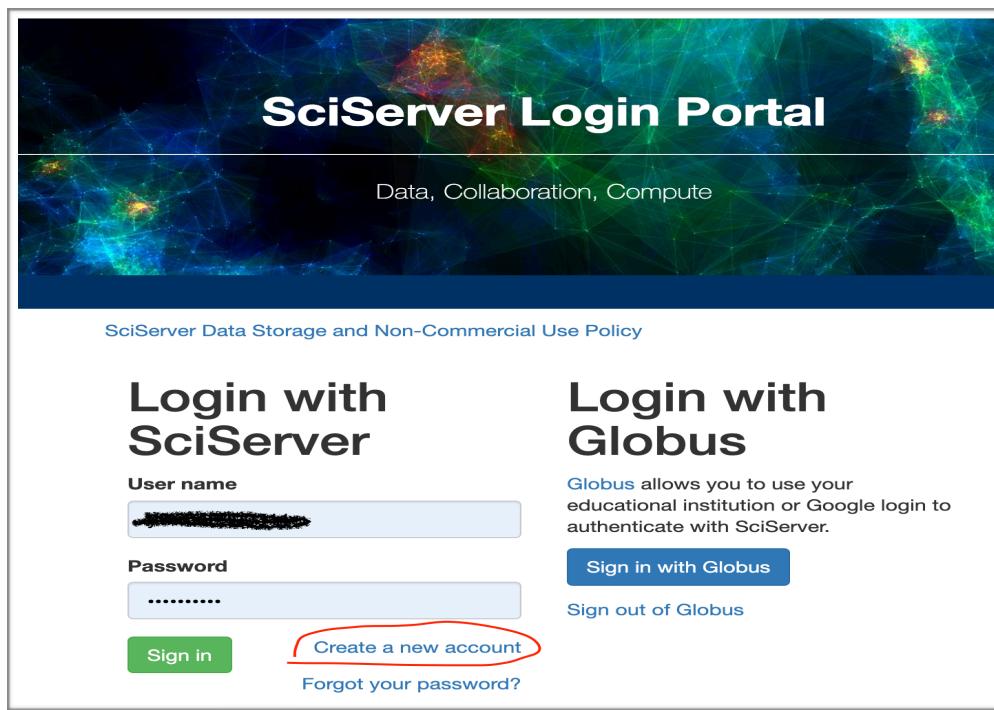


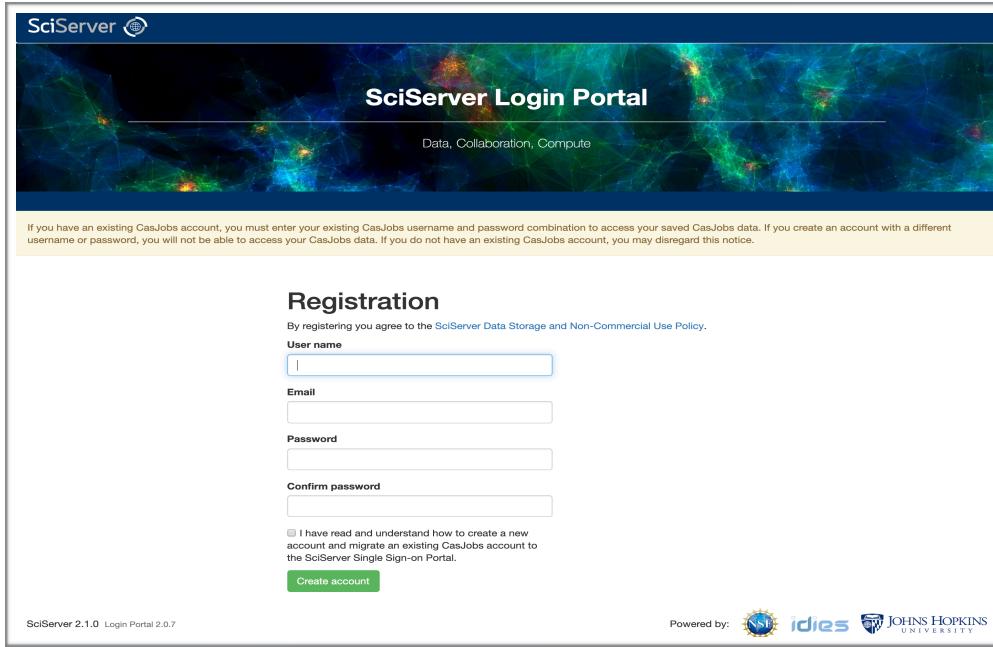
# SciServer Tutorial

1. Go to: <http://www.sciserver.org/> & Click “Login to SciServer”



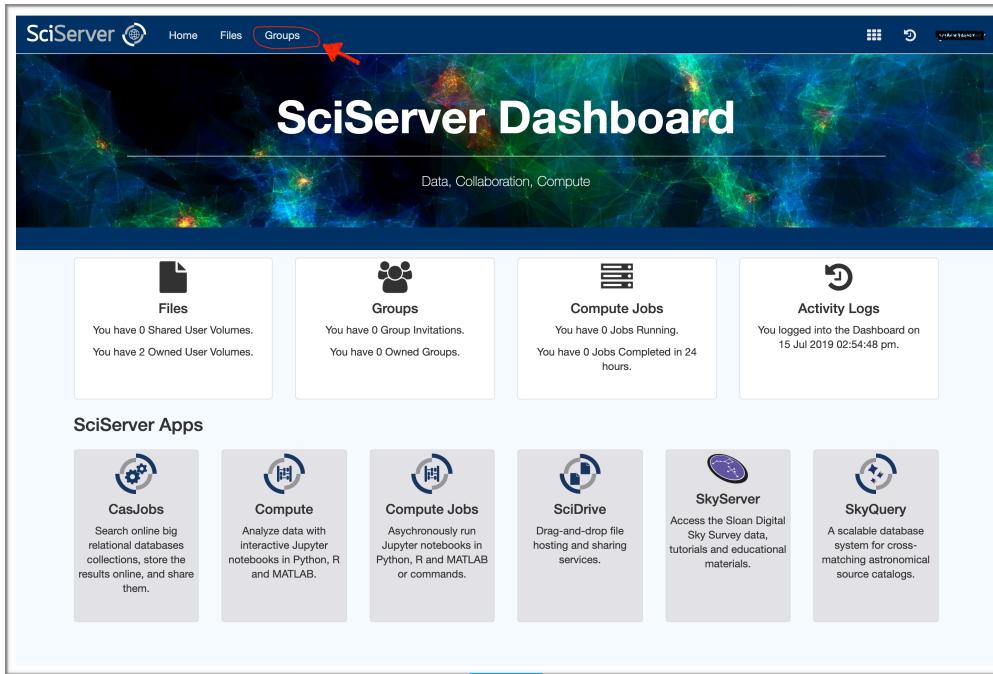
2. Click “Create a new account” if you don’t have one already.





The SciServer Login Portal registration page features a dark blue header with the SciServer logo and a banner image of a star field. Below the banner, the text "SciServer Login Portal" and "Data, Collaboration, Compute" is displayed. A note at the top states: "If you have an existing CasJobs account, you must enter your existing CasJobs username and password combination to access your saved CasJobs data. If you create an account with a different username or password, you will not be able to access your CasJobs data. If you do not have an existing CasJobs account, you may disregard this notice." The main form includes fields for "User name", "Email", "Password", and "Confirm password". There is also a checkbox for accepting the "SciServer Data Storage and Non-Commercial Use Policy" and a "Create account" button. At the bottom, it says "SciServer 2.1.0 Login Portal 2.0.0" and "Powered by: NSF idies JOHNS HOPKINS UNIVERSITY".

3. An activation email will be sent to you at the email address you provided during the registration process.
4. Once you have completed the steps above, please send us your “User name”, then we can add you to our group.
5. After we add you to our group, you can see an invitation within Groups on SciServer, you need to accept it. Then you can see the shared “AGN\_training” folder



The SciServer Dashboard page shows a navigation bar with "Home", "Files", and "Groups" (which has a red arrow pointing to it). The main content area features a banner with "SciServer Dashboard" and "Data, Collaboration, Compute". Below the banner are four cards: "Files" (2 shared volumes), "Groups" (0 invitations, 0 owned groups), "Compute Jobs" (0 jobs running, 0 completed in 24 hours), and "Activity Logs" (logged in on 15 Jul 2019 02:54:48 pm). A section titled "SciServer Apps" contains icons for CasJobs, Compute, Compute Jobs, SciDrive, SkyServer, and SkyQuery. A large blue downward arrow is positioned below the dashboard.

The screenshot shows the SciServer Groups page. A blue arrow points down from this screen to the next one. On the left, there's a sidebar with 'Groups' and a search bar. In the main area, there's a card for 'Drexel LSST' with the subtext 'Group for LSST work centered at Drexel'. Below it, a message says 'You have been invited to join this group created by gtr.' with 'Accept Invitation' and 'Decline Invitation' buttons.

This screenshot shows the same SciServer Groups page after accepting the invitation. The 'Shared Files' section now contains a folder named 'AGN\_training', which is circled in red.

6. Next, if you want to work with the data on SciServer, you need to start a new container from Compute and mount the shared volume. To access Compute, click the third icon from the right on the top menu and click Compute.

The screenshot shows the SciServer Groups page again. A red arrow points to the 'Compute' icon in the top right menu bar. To the right of the menu, a sidebar shows user roles: OWNER, ADMIN, ADMIN, and MEMBER. The 'Compute' icon is circled in red.

This screenshot shows the SciServer Compute page. A blue arrow points down from the previous screen. At the top, it says 'Now Available: JupyterLab and Classical Jupyter images are now combined. Containers default to the classical interface and will remember the last interface used.' The main area is titled 'Containers' and has a table with columns 'Created At', 'Name', 'Domain', 'Image', and 'Status'. A green 'Create container' button is highlighted with a red circle.

**Note:**

- 1) You need to select Python +R from “Compute Image”, (there are a lot of options, not guaranteed that every image has the compatible python version installed).
- 2) The box next to ‘AGN\_training, Storage Volume created by ywx649999311’ under “User volumes” has to be checked, otherwise you won’t see the shared files in the Jupyter environment.

**Create a new container**

**Container name**  
LSST AGN

**Domain**  
Interactive Docker Compute Domain

Shared Intel Xeon E7 systems. All containers are limited to 100GiB of RAM. Unused containers are shut down after 3 days.

**Compute Image** ?  
 (circled)

Python 2.7, Python 3.6, R 3.4, and development tools using the Anaconda Python distribution and R Essentials.

**User volumes**

AGN\_training, Storage Volume created by ywx649999311 (circled)  
 persistent, Storage Volume created by ywxtest  
 scratch, Temporary Volume created by ywxtest

**Data volumes** ?

Getting Started  
 Ocean Circulation  
 Recount  
 SDSS DAS

**Create**

7. Once you the container is created, click the name of the container to open up the Jupyter environment in a new tab.

Containers					
Created At	Name	Domain	Image	Status	
2019-07-15 15:30:54.0	LSST AGN	Interactive	Python + R	running	■ ⓘ ✕
<a href="#">Create container</a>					

Now you should see the shared folder /Storage/ywx649999311/AGN\_training. The actual data is stored in /Storage/ywx649999311/AGN\_training/Stripe 82/ and I recommend you start with the ReadMe.ipynb. A zip file (dataV1 only) is also shared under AGN\_training folder in case you want to play with the data offline.

As I suggested in the ReadMe notebook, it is better to copy the 'Script\_NBs' directory to your own persistent storage, that way we can all have our own copy of the notebooks and utils module to avoid any conflict.

To copy the 'Script\_NBs' directory for the shared volume to your space, you only need to hover over to the target directory and a copy option will appear to the right, click 'copy' and then a pop up window will ask you where to save the copy.

The screenshot shows the SciServer web interface. On the left, there's a sidebar with 'Volumes' and 'User Volumes' sections. The main area shows a file tree under 'Storage/ywx649999311/AGN\_training/Stripe 82'. Inside, there are several items: '.ipynb\_checkpoints' (modified 2019-07-09), 'Data' (modified 2019-07-16), 'Script\_NBs' (modified 2019-07-16), and 'ReadMe.ipynb' (modified 2019-07-16). The 'Script\_NBs' item has a context menu open with options: 'Copy' (highlighted with a red circle), 'Rename', 'Move', and 'Delete'.

This screenshot shows the 'Copy Folder/File' dialog box. It has a sidebar with 'Volumes', 'User Volumes', and 'Data Volumes' sections. Below is a list of volumes:

Volume	Root Volume	Owner
AGN_training	Storage	ywx649999311
<b>persistent</b>	Storage	ywxtest
scratch	Temporary	ywxtest

At the bottom are 'Paste' and 'Cancel' buttons.