



# GitHub for IVOA Standards

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# IVOA GitHub Approach

- Hosted at <https://github.com/ivoa-std>
- One repository for each standard
- Shows the current development of the standard
- Use issues to track work
- License: CC-BY-SA

The screenshot shows the GitHub interface for the 'ivoa-std' organization. At the top, there are navigation links for 'Repositories 6', 'Packages', 'People 10', 'Teams 3', and 'Projects'. The main header displays the organization's name 'International Virtual Observatory Alliance standards' and a description 'IVOA standards documents' with a link to 'http://ivoa.net/documents/'. Below this is a search bar and filters for 'Type: All' and 'Language: All'. A 'New' button is visible in the top right. The repository list includes:

- datalink**: DataLink standard (DAL). Language: TeX. 1 fork, 0 stars, 3 issues, 2 pull requests. Updated on 22 Jul.
- volute-migration**: Scripts and documentation to move document development from Volute SVN to Github. Language: Shell. 0 forks, 0 stars, 0 issues, 0 pull requests. Updated on 17 Jun.
- ivoatex**: IVOA LaTeX toolkit for document authors. Language: C. License: GPL-3.0. 1 fork, 1 star, 0 issues, 0 pull requests. Updated on 12 Jun.

On the right side, there are sections for 'Top languages' (TeX, Shell, C) and 'People' (10 >).



# Git Terminology

Term	Description
Repository	Collection of files managed by git (aka repo)
Fork	Make a copy of a GitHub repo in your own GitHub account
Branch	Create a separate track of the code to work on
Clone	Create a local copy of the repo

Term	Description
Pull	Download the changes made by others
Commit	Make a change to your local copy of a repository
Push	Push any local changes up to your repo in GitHub
Pull Request	Request that your changes be pulled into the main repository (aka PR)



# IVOA Roles

- IVOA Community
  - Raise issues
  - Fork repository
  - Make changes in forked repo
  - Raise pull requests
- Editors, working group chair & vice chair
  - Review and merge pull requests
- TCG chair and vice-chair
  - Create new repositories



# Repository Organisation

- Master shows work on next version
  - Activity on the standard is publicly visible
- IVOA community updates master via pull requests
- Use tags to mark
  - v1.0-20191013-WD - Working draft releases
  - v1.0-20191014-PR - Proposed recommendations
  - v1.0-REC - Recommendation



# Process Overview

- We are using the GitHub flow

1. Raise Issue
2. Fork repo
3. Clone your repo
4. Create branch for change  
Named after the issue#
5. Commit changes to branch
6. Push to your repo
7. Raise pull request



# Demonstration



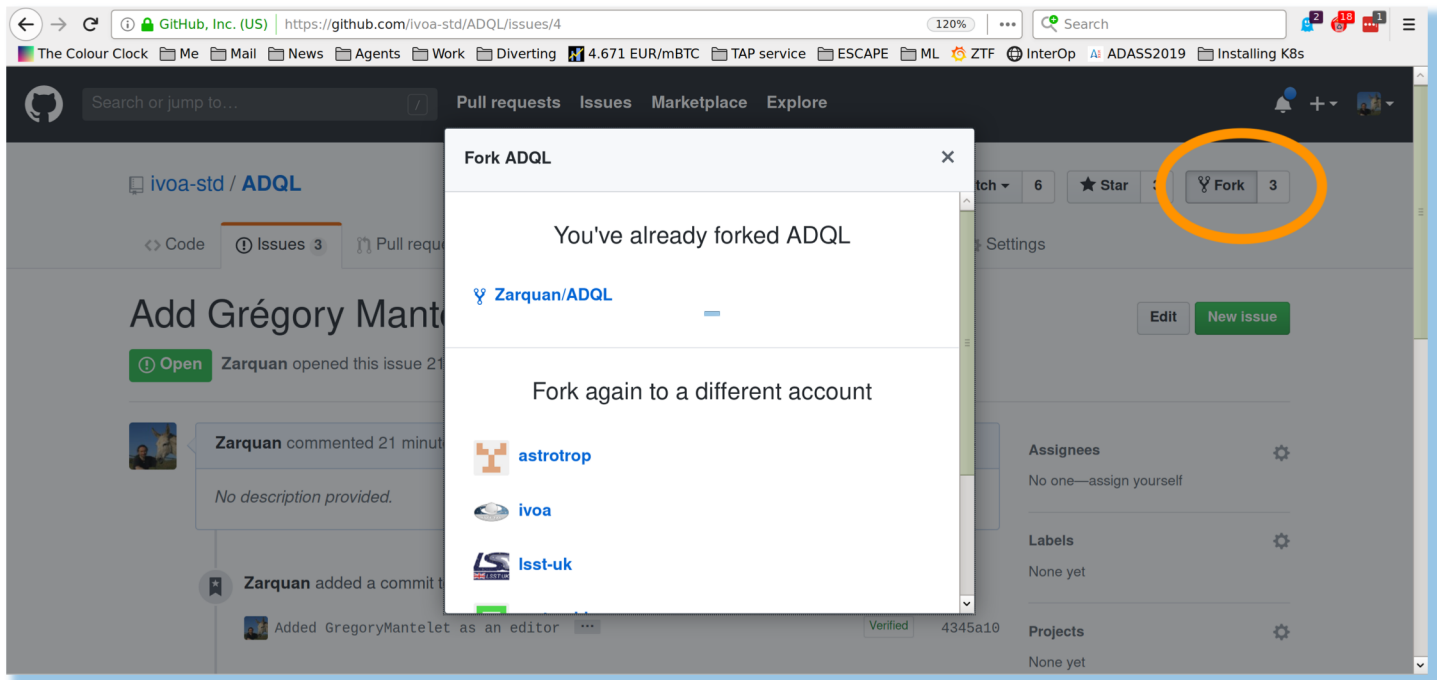
# 1. Raise Issue

The screenshot shows a web browser window displaying a GitHub issue page. The address bar shows the URL <https://github.com/ivoa-std/ADQL/issues/4>. The page header includes the repository name 'ivoa-std / ADQL' and navigation options like 'Unwatch', 'Star', and 'Fork'. The issue title is 'Add Grégory Mantelet as editor #4'. A green 'New Issue' button is visible. The issue was opened by 'Zarquan' 20 minutes ago. A comment from 'Zarquan' states 'No description provided.' Below the comment, a commit by 'Zarquan' is shown, which added a commit to 'Zarquan/ADQL' that referenced this issue. A verification badge is present next to the commit message 'Added GregoryMantelet as an editor'. On the right side, there are sections for 'Assignees', 'Labels', and 'Projects', all currently empty.





## 2. Fork Repo





## 2. Fork Repo

The screenshot shows a web browser displaying the GitHub repository page for 'Zarquan / ADQL'. The repository is a fork of 'ivoa-std/ADQL'. The page includes navigation links for Pull requests, Issues, Marketplace, and Explore. The repository name 'Zarquan / ADQL' is circled in orange. Below the repository name, there are buttons for Watch (0), Star (0), and Fork (3). The main content area shows the file 'ADQL / ADQL.tex' selected, with a commit message 'olebole Remove unused SVN tags' and 4 contributors. The file content is displayed in a code editor, showing LaTeX code for document class and packages.

Search or jump to... Pull requests Issues Marketplace Explore

Zarquan / ADQL  
forked from ivoa-std/ADQL

Watch 0 Star 0 Fork 3

Code Pull requests 0 Projects 0 Wiki Security Insights Settings

Branch: master ADQL / ADQL.tex Find file Copy path

olebole Remove unused SVN tags f7916d0 on 9 May

4 contributors

3957 lines (3248 sloc) | 120 KB Raw Blame History

```
1 \documentclass[11pt,a4paper]{ivoa}
2 \input tthdefs
3
4
5 \usepackage[utf8]{inputenc}
6 \usepackage{tabularx}
```

<https://github.com/Zarquan/ADQL/projects> `{mathtools}`



# 3. Clone Repository

The screenshot shows the GitHub interface for the repository 'jd-au / ADQL', which is a fork of 'ivoa-std/ADQL'. The repository has 109 commits, 1 branch, 1 release, and 4 contributors. The current branch is 'master'. A dropdown menu is open under the 'Clone or download' button, showing options to clone with SSH or HTTPS, and to download the ZIP file. The 'Open in Desktop' option is highlighted with an orange circle. Below the dropdown, a list of files is visible, including 'ivoatex @ b54911c', 'notes', '.gitmodules', 'ADQL-archdiag.png', 'ADQL.tex', and 'Makefile'.

jd-au / ADQL  
forked from ivoa-std/ADQL

Watch 0 Star 0 Fork 4

Code Pull requests 0 Projects 0 Wiki Security Insights Settings

Astronomical Data Query Language Standard <https://wiki.ivoa.net/wiki/bin/view/...> Edit

Manage topics

109 commits 1 branch 1 release 4 contributors

Branch: master New pull request Create new file Upload files Find file Clone or download

This branch is even with ivoa-std:master.

Zarqan Merge pull request ivoa-std#1 from olebole/add-ivoatex-submodule ...

File	Description	Time
ivoatex @ b54911c	Add ivoatex submodule	
notes	Updated WD date	
.gitmodules	Add ivoatex submodule	5 months ago
ADQL-archdiag.png	Updated architecture diagram	2 years ago
ADQL.tex	Remove unused SVN tags	5 months ago
Makefile	Undo changes from revision 4659 (fix them later).	11 months ago

Clone with SSH Use HTTPS

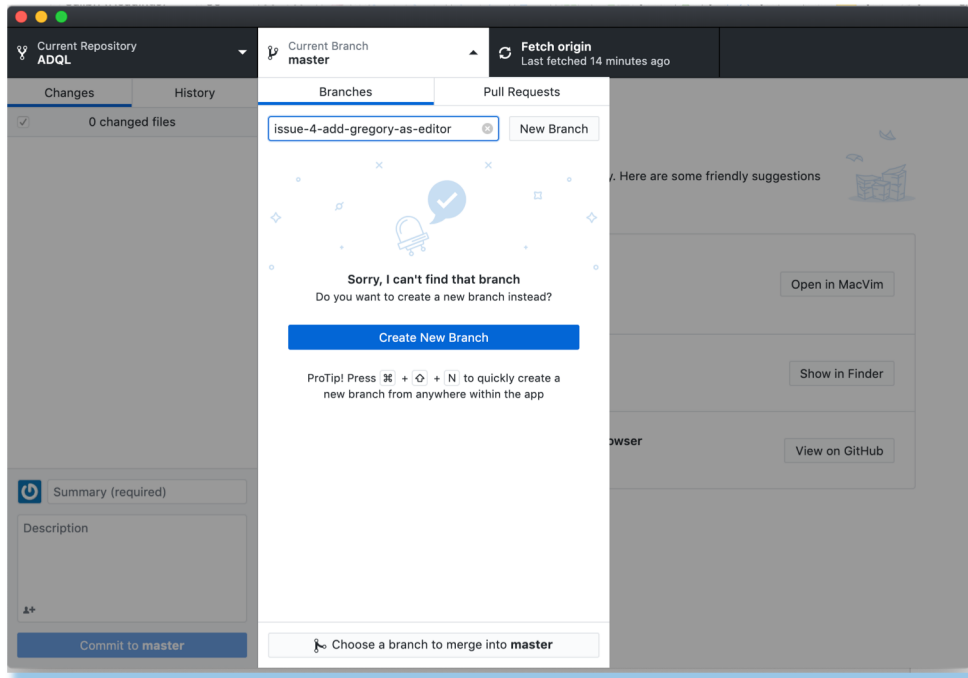
Use a password protected SSH key.

git@github.com:jd-au/ADQL.git

Open in Desktop Download ZIP



# 4. Create Branch





# 5. Commit changes to branch

The screenshot shows a code editor interface for committing changes to a branch. The top bar displays the current repository as 'ADQL' and the current branch as 'issue-4-add-gregory-as-e...'. A 'Publish branch' button is visible on the right.

The 'Changes' panel on the left shows '1 changed file' and 'ADQL.tex' with a diff icon. The main editor area shows the diff for 'ADQL.tex' with the following content:

```
@@ -35,6 +35,7 @@
35 35 \author{Yuji Shirasaki}
36 36 \author{Alexander Szalay}
37 37
38 38 +\editor[http://wiki.ivoa.net/twiki/bin/view/IVOA/GregoryMantelet]{Grégory Mantelet }
39 39 \editor[http://wiki.ivoa.net/twiki/bin/view/IVOA/DaveMorris]{Dave Morris}
40 40
40 41 \previousversion[http://www.ivoa.net/Documents/ADQL/2.0]{ADQL-2.0}
```

At the bottom, there is a 'Commit to issue-4-add-gregory-...' button and a 'Description' field with a '+' icon for adding more text.



# 6. Push to your repo

The screenshot shows the GitHub Desktop application window. At the top, the 'Current Repository' is 'ADQL' and the 'Current Branch' is 'issue-4-add-gregory'. The 'Publish branch' button is highlighted with an orange circle. The main area displays 'No local changes' and suggests publishing the branch. The left sidebar shows '0 changed files' and a 'Commit to issue-4-add-gregory' button.

Current Repository: ADQL

Current Branch: issue-4-add-gregory

Publish branch: Publish this branch to GitHub

Changes: 0 changed files

### No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.

**Publish your branch**  
The current branch ( issue-4-add-gregory ) hasn't been published to the remote yet. By publishing it to GitHub you can share it, open a pull request, and collaborate with others.  
Always available in the toolbar or `⌘ P`

**Open the repository in your external editor**  
Select your editor in [Preferences](#) Open in MacVim  
Repository menu or `⌘ ⌘ A`

**View the files of your repository in Finder**  
Show in Finder  
Repository menu or `⌘ ⌘ F`

**Open the repository page on GitHub in your browser**  
View on GitHub  
Repository menu or `⌘ ⌘ G`

Summary (required)

Description

↓+

Commit to issue-4-add-gregory



# 7. Raise Pull Request

The screenshot shows a code editor interface with the following elements:

- Top Bar:** Displays 'Current Repository ADQL', 'Current Branch issue-4-add-gregory', and 'Fetch origin Last fetched just now'.
- Left Panel:** Shows 'Changes' and 'History' tabs. Under 'Changes', it indicates '0 changed files'.
- Main Area:** Displays 'No local changes' with a sub-header 'There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.' and a small icon of a shopping cart.
- First Suggestion:** 'Create a Pull Request from your current branch'. It states: 'The current branch ( issue-4-add-gregory ) is already published to GitHub. Create a pull request to propose and collaborate on your changes.' Below this is the text 'Branch menu or ⌘ R'. A blue button labeled 'Create Pull Request' is circled in orange.
- Second Suggestion:** 'Open the repository in your external editor'. It says 'Select your editor in Preferences' and 'Repository menu or ⌘ ⌘ A'. A button 'Open in MacVim' is present.
- Third Suggestion:** 'View the files of your repository in Finder'. It says 'Repository menu or ⌘ ⌘ F'. A button 'Show in Finder' is present.
- Fourth Suggestion:** 'Open the repository page on GitHub in your browser'. It says 'Repository menu or ⌘ ⌘ G'. A button 'View on GitHub' is present.
- Bottom Panel:** Contains a 'Summary (required)' section with a 'Description' text area and a 'Commit to issue-4-add-gregory' button.



# 7. Raise Pull Request

GitHub, Inc. (US) | https://github.com/ivoa-std/ADQL/compare/master...Zarquan:issue-4-add-gregory-as-editor? | 120% | Search

The Colour Clock | Me | Mail | News | Agents | Work | Diverting | 4.671 EUR/mBTC | TAP service | ESCAPE | ML | ZTF | InterOp | ADASS2019 | Installing K8s

Search or jump to... | Pull requests | Issues | Marketplace | Explore

ivoa-std / ADQL | Unwatch 6 | Star 3 | Fork 3

Code | Issues 3 | Pull requests 1 | Projects 0 | Wiki | Security | Insights | Settings

## Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

base repository: ivoa-std/ADQL | base: master | head repository: Zarquan/ADQL | compare: issue-4-add-gregory-as-editor

✓ Able to merge. These branches can be automatically merged.

Added Gregory as editor

Write | Preview | AA B i “ <> ↻ ☰ ☷ ✓ @ 📌 ↶

Fix for issue #4 - Add Grégory Mantelet as editor

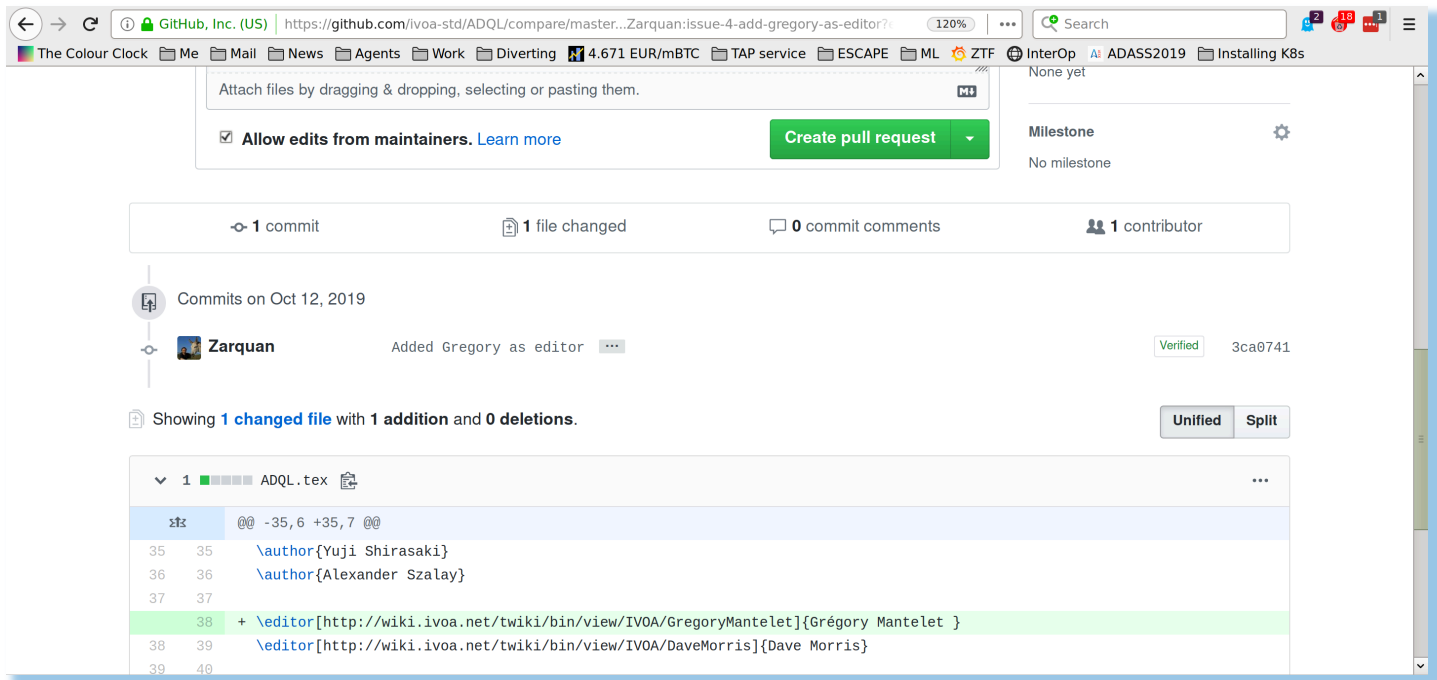
Reviewers | No reviews—at least 1 approving review is required.

Assignees





# 7. Raise Pull Request



The screenshot shows a GitHub pull request interface. At the top, there's a browser address bar with the URL `https://github.com/ivoa-std/ADQL/compare/master...Zarquan:issue-4-add-gregory-as-editor?...`. Below the browser, a file upload area contains the text "Attach files by dragging & dropping, selecting or pasting them." and a green "Create pull request" button. A checkbox labeled "Allow edits from maintainers" is checked. The pull request summary shows "1 commit", "1 file changed", "0 commit comments", and "1 contributor". The commit history shows a commit by Zarquan on Oct 12, 2019, titled "Added Gregory as editor". The diff view shows a change in `ADQL.tex` with 1 addition and 0 deletions. The diff content is as follows:

```
@@ -35,6 +35,7 @@
35 35 \author{Yuji Shirasaki}
36 36 \author{Alexander Szalay}
37 37
38 + \editor[http://wiki.ivoa.net/twiki/bin/view/IVOA/GregoryMantelet]{Grégory Mantelet }
38 39 \editor[http://wiki.ivoa.net/twiki/bin/view/IVOA/DaveMorris]{Dave Morris}
39 40
```



# 7. Raise Pull Request

GitHub, Inc. (US) | https://github.com/ivoa-std/ADQL/pull/8

The Colour Clock Me Mail News Agents Work Diverting 4.671 EUR/mBTC TAP service ESCAPE ML ZTF InterOp ADASS2019 Installing K8s

Search or jump to... Pull requests Issues Marketplace Explore

ivoa-std / ADQL Unwatch 6 Star 3 Fork 3

Code Issues 3 Pull requests 2 Projects 0 Wiki Security Insights Settings

## Added Gregory as editor #8

Open Zarquan wants to merge 1 commit into ivoa-std:master from Zarquan:issue-4-add-gregory-as-editor

Conversation 0 Commits 1 Checks 0 Files changed 1 +1 -0

Zarquan commented now Member + 😊 ...

Fix for issue #4 - Add Grégory Mantelet as editor

Reviewers: No reviews—at least 1 approving review is required.

Assignees: No one—assign yourself

Verified 3ca0741

1



# 7. Raise Pull Request

The screenshot shows a web browser window displaying a GitHub pull request page. The address bar shows the URL `https://github.com/ivoa-std/ADQL/pull/8`. The page title is "Added Gregory as editor #8". A green "Open" button is visible. The main content area shows a commit by "Zarquan" with a "Verified" badge and commit hash "3ca0741". Below the commit, there are two error messages: "Review required" (At least 1 approving review is required by reviewers with write access. [Learn more.](#)) and "Merging is blocked" (Merging can be performed automatically with 1 approving review.). A "Merge pull request" button is present, along with a link to "view command line instructions.". The right sidebar contains sections for "Assignees" (No one—assign yourself), "Labels" (None yet), "Projects" (None yet), "Milestone" (No milestone), and "Notifications" (Customize, Unsubscribe button). The bottom of the page shows a comment input field with the text "Leave a comment".



# Editor – Review Pull Request

The screenshot shows a GitHub pull request page for the repository 'ivoa-std / ADQL'. The pull request title is 'Added Gregory as editor #8', submitted by 'Zarqan' to the 'ivoa-std:master' branch. The interface includes navigation tabs for Code, Issues (3), Pull requests (2), Projects (0), Wiki, Security, Insights, and Settings. A 'Review changes' button is highlighted with a red circle. The review modal is open, showing a diff for 'ADQL.tex' with changes on lines 35-41. The review options are: Comment (unselected), Approve (selected), and Request changes (unselected). A 'Submit review' button is at the bottom of the modal.

ivoa-std / ADQL

Unwatch 6 Star 3 Fork 3

Code Issues 3 Pull requests 2 Projects 0 Wiki Security Insights Settings

## Added Gregory as editor #8

Edit

Open Zarqan wants to merge 1 commit into ivoa-std:master from Zarqan:issue-4-add-gregory-as-editor

Conversation 0 Commits 1 Checks 0 Files changed 1 +1 -0

Changes from all commits File filter... Jump to... 0 / 1 files viewed Review changes

ADQL.tex

```
@@ -35,6 +35,7 @@
35 35 \author{Yuji Shirasaki}
36 36 \author{Alexander Szalay}
37 37
38 + \editor[http://wiki.ivoa
38 39 \editor[http://wiki.ivoa
39 40
40 41 \previousversion[http://
```

Write Preview

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

- Comment  
Submit general feedback without explicit approval.
- Approve  
Submit feedback and approve merging these changes.
- Request changes  
Submit feedback that must be addressed before merging.

Submit review



# Editor – Merge Pull Request

Added Gregory as editor #8 Edit

[Open](#) Zarquan wants to merge 1 commit into `ivoa-std:master` from `Zarquan:issue-4-add-gregory-as-editor`

Conversation 0 Commits 1 Checks 0 Files changed 1 +1 -0

**Zarquan** commented 3 hours ago Member +😊 ⋮

Fix for issue #4 - Add Grégory Mantelet as editor

**Added Gregory as editor** Verified `3ca0741`

**jd-au** approved these changes now View changes

Add more commits by pushing to the `issue-4-add-gregory-as-editor` branch on `Zarquan/ADQL`.

**Changes approved** Show all reviewers

1 approving review by reviewers with write access. [Learn more.](#)

1 approval

**This branch has no conflicts with the base branch**

Merging can be performed automatically.

**Merge pull request** ⌵ You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

**Reviewers** ⚙️

**jd-au** 🔄 ✅

**Assignees** ⚙️

No one—assign yourself

**Labels** ⚙️

None yet

**Projects** ⚙️

None yet

**Milestone** ⚙️

No milestone

**Notifications** Customize

**Unsubscribe**

You're receiving notifications because you're watching this repository.

2 participants



# Change Complete

<> Code Issues 3 Pull requests 2 Projects 0 Wiki Security Insights Settings

## Added Gregory as editor #8 Edit

**Merged** jd-au merged 1 commit into `ivoa-std:master` from `Zarquan:issue-4-add-gregory-as-editor` 44 seconds ago

Conversation 0 Commits 1 Checks 0 Files changed 1 +1 -0

**Zarquan** commented 4 hours ago Member + 😊 ...

Fix for issue #4 - Add Grégory Mantelet as editor

Added Gregory as editor Verified 3ca0741

**jd-au** approved these changes 3 minutes ago View changes

**jd-au** merged commit `ad5c1d8` into `ivoa-std:master` 44 seconds ago Revert

**Reviewers** Settings

**jd-au** ✓

**Assignees** Settings

No one—assign yourself

**Labels** Settings

None yet

**Projects** Settings

None yet



# Useful Tools

- Documentation

- GitHub flow -

<https://guides.github.com/introduction/flow/>

- How to fork a repo -

<https://guides.github.com/activities/forking/>

- GitHub Issues -

<https://guides.github.com/features/issues/>

- Desktop Tools

- GitHub Desktop

- Atlassian SourceTree

- GitKraken



# Try it out

- GitHub practice repository
  - <https://github.com/octocat/Spoon-Knife>
  - Fork, change, pull request





# Thank you

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