

ePIC on Github

Steps to become a member and start contributing:

Join the EIC Organization

<https://github.com/eic>

Join the ePIC Devs Team (***after*** you are a member of the EIC Organization)

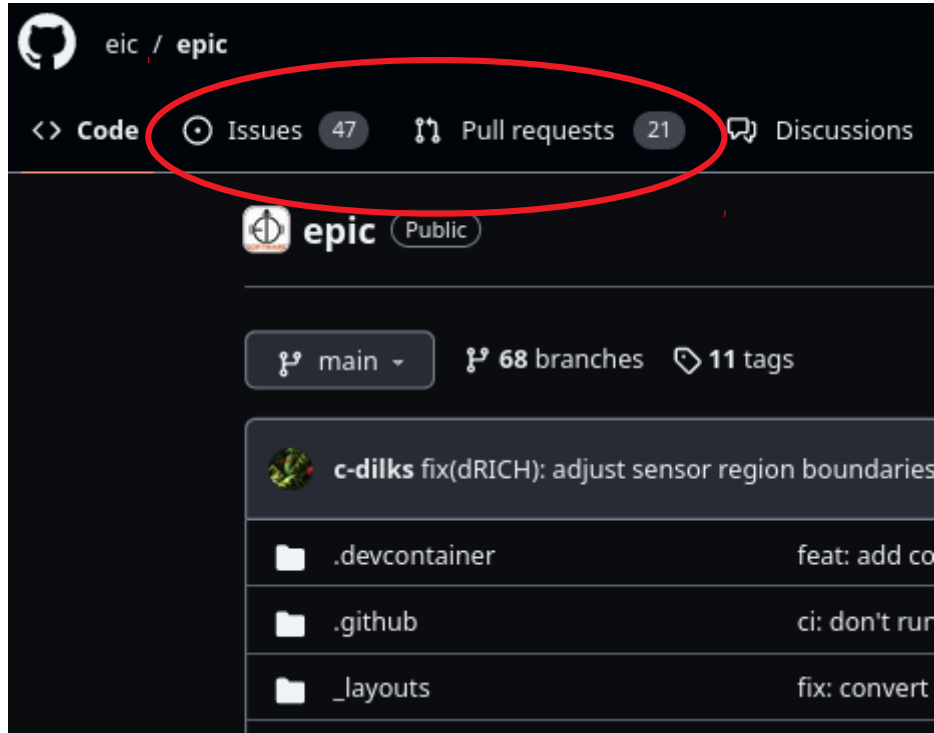
<https://github.com/orgs/eic/teams/epic-devs>

All of our ePIC Software is part of the EIC Organization, a subset of which is for the dRICH

Software Repositories

- [epic](#) – for the EPIC detector geometry, based on [DD4hep](#)
 - [EICRecon](#) – for the reconstruction framework
 - [irt](#) – for the Indirect Ray Tracing for RICH reconstruction
 - [EDM4eic](#) – for the data model; this extends [EDM4hep](#), the common data model
 - [drich-dev](#) – for our dRICH-specific tools
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- These repositories are *shared* with all EIC/ePIC collaborators
 - The dRICH is not alone, these are for *full* simulations and reconstruction
 - Therefore, all proposed changes to the code gets *reviewed* and *tested* before they are accepted
 - Once you are a part of the “ePIC Devs” team, you can contribute!
 - (or you can fork, but that’s not recommended)

Github Workflow



- 47 issues and 21 pull requests, for all of ePIC... the dRICH is not alone!
- We use issues and pull requests for **communication** and **collaboration**

Each repository has:

- **Issues**

- A bug, but not all “Issues” are bugs
- Can also be any “task” to do
- Or a new idea
- Or a feature request
- Can be anything that can be solved with code

- **Pull Requests**

- The *solution* to an issue
- A proposal for changes to the code
- Triggers automated jobs (Continuous Integration (CI)), such as:
 - geometry overlap checks
 - automatic GDML file production
 - performance plots (benchmarks)
- When ready, ask for a review, discuss, and revise if needed
- If accepted, it gets *merged* to the main production branch!

Example

Issue, the problem statement

<https://github.com/eic/epic/issues/353>

Linked Pull request, the solution

<https://github.com/eic/epic/pull/374>

- The issue is “closed” since it is solved (“open” issues are not yet solved, or are being worked on)
- The pull request is “merged” since it has been accepted and merged to the main production branch
- Other pull request states:
 - Draft: ongoing work, not ready for review
 - Open: ready for review, or being reviewed, maybe still ongoing work
 - Closed: rejected and will not be merged (not all pull requests have to be merged, and not all ideas are good ideas)

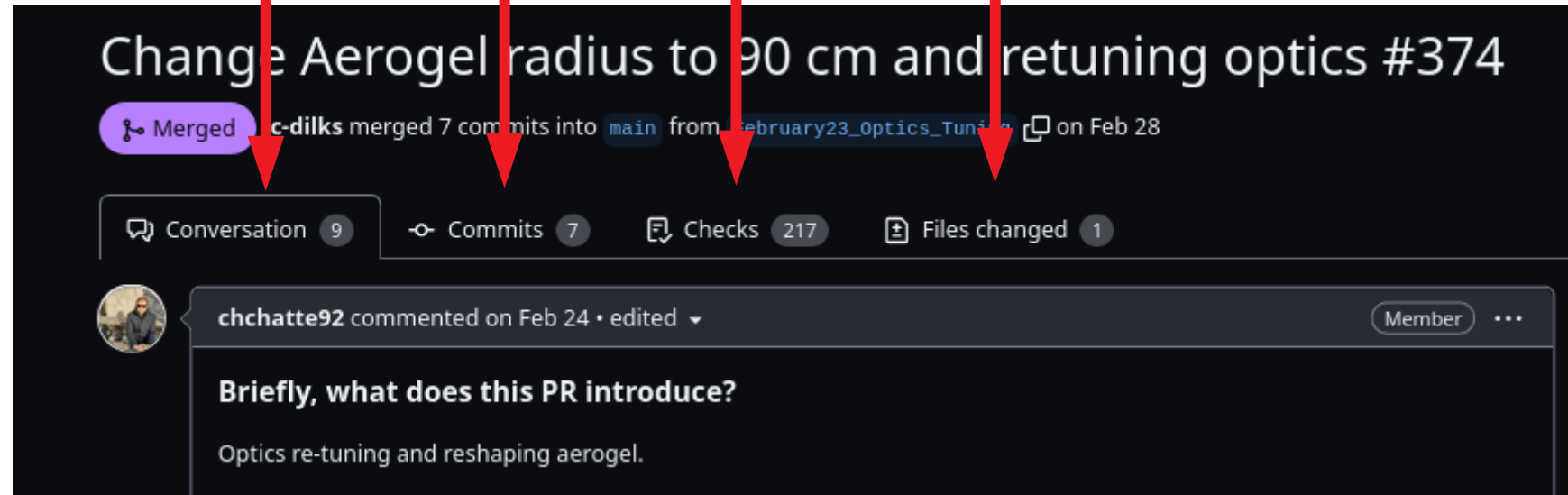
Discussion about the
pull request, and review

git commits

CI jobs and
results

Most important:
the changes to the code

The pull
request
→



There is a lot happening...

5 Github repositories, each with **many many** issues and pull requests, for all of ePIC (actually there are several more repositories!)

How can we keep track of the dRICH issues and pull requests?

Solution: the dRICH Simulation Project Board
<https://github.com/orgs/eic/projects/4/views/5>

dRICH Project Board

Open issues, things to do, **help needed!**

Issues with linked pull requests

Issues and pull requests that have been **Merged**

Long term ideas and plans (not issues, but can be)

A dashboard view, useful for meetings

eic / Project / dRICH Simulations

Type to search

dRICH Simulations

TODO LIST (open issues)

IN PROGRESS (pull requests)

DONE

Long Term Tasks and Ideas

Kanban

New View

status:Todo

| Title | Repos... | Notes | Assignees |
|--|--------------|-------|-----------|
| eic/EICrecon | | | |
| 12 dRICH: set preferred PhotoMultiplierHitDigi paramaters #353 | eic/EICre... | | |
| 13 richgeo: add ACTS surface downstream to help filter tracks which will n... #564 | eic/EICre... | | c-dilks |
| 22 dRICH: propagate tracks to spherical mirrors #396 | eic/EICre... | | |
| + Cannot add items when grouped by repository | | | |
| eic/epic | | | |
| 34 dRICH: update mirror parameterization #123 | eic/epic | | |
| 35 dRICH: group sensors in 2x2 matrices #333 | eic/epic | | |

Issues and pull requests, organized by repository, with columns such as “Notes” and “Assignee”

Click on them for more info!