

# editorial/project team update

ecce proposal team: Tom Cormier, Richard Milner, PAS

Peter Steinberg, BNL/ ECCE biweekly meeting / 21 June 2021

# Today's update

- **Document workflow**
- **Document naming convention**
- **Collaborative proposal outline**

# Collaboration workflow

- **Day to day interaction**

- Mattermost - CERN service deployed at BNL. Heavily used by sPHENIX already
  - <https://chat.sdcc.bnl.gov>
- discourse - open source, with an instance at BNL, now heavily used by ECCE
  - <https://discourse.sdcc.bnl.gov>
  - *Think of it as a replacement for a zillion email lists by “categories”, which contain “topics” (essentially email threads)*

- **Document production and distribution**

- Github - source code management, issue tracking
- Overleaf - wysiwyg editor
- Zenodo - document publishing

# ECCE proceeding its move to discourse!

BROOKHAVEN

NATIONAL LABORATORY

1

EIC-ECCE ▸

all ▸

Latest

New (1)

Top

Edit

+ Open Draft

☰ Topic

Replies

Views

Activity

Detector planes within B0 magnet volume does not generate hits

•

Comp-general

B

2

4

8h

last visit

Generating new Sartre events (updated!)

Phys-ep

J

2

17

8h

EIC/ECCE computing meeting

Comp-general

1

6

2d

ZDCsurrogate rotation in Y not being performed

Comp-general

B

3

12

4d

ZDC in a placement/angle

Far-forward Detectors

B

C

9

9

6d

ECCE Jet Samples

Phys-hfjets

P

R

8

18

11d

ZDC energy smearing algorithm

Physics

B

2

13

21d

DSTOUT\_COMPRESS = true ignores G4HIT\_ZDC

Comp-general

B

C

4

6

21d

Re-analyze Fun4all generated data

Comp-general

B

C

11

16

22d

DVMP generator from Garth Hubert

Phys-ep

J

H

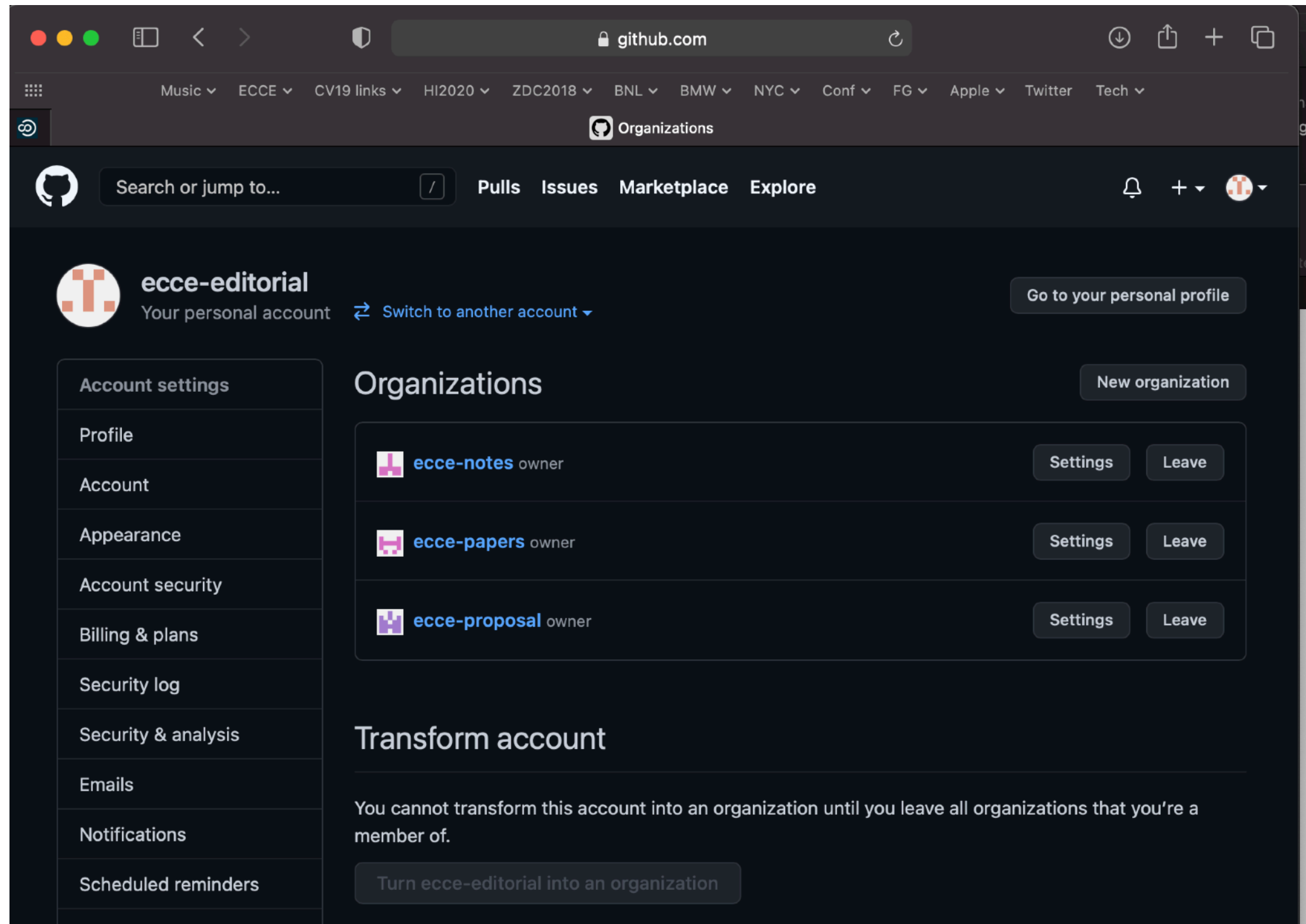
1

20

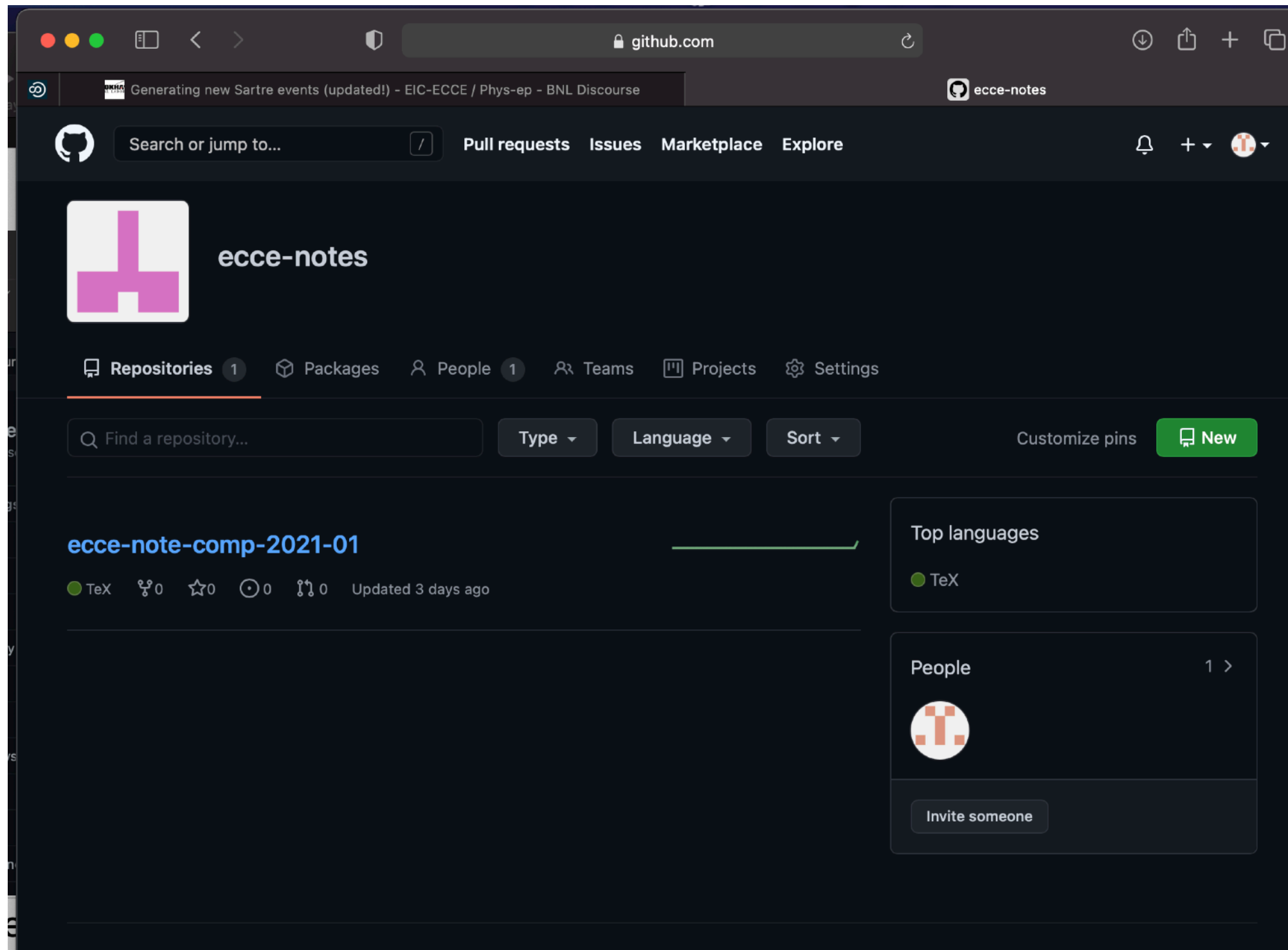
22d

# Requirements for ECCE

- **ECCE has 77+ institutions just last week**
  - 100's of potential collaborators
  - 10's of active members working on simulations, physics, detector design, computing, etc.
- **Production of a non-trivially large set of documents by Dec 1**
  - 60 page main proposal
  - O(25-30) supporting documents (physics, detector, computing)
- **Requirements**
  - Each document needs a well-defined “home” (github) and practical means to write and edit them
    - *[GitHub.com](#) linked to [overleaf.com](#) (BNL purchasing licenses soon)*
  - Documents need to be releasable in snapshots with well defined version number and allow collaboration comments, with replies from authors
    - *Use GitHub release and issue tracking mechanisms*
  - When complete, need a means to host the documents at BNL
    - *Zenodo (from CERN, based on invenio, used by PHENIX at CERN)*
    - *Since last fall, instance hosted by SDCC at BNL*



Currently: ecce-editorial account hosts three “organizations”, each of which can have their own access control. Each will contain one GitHub repository per note/paper/proposal



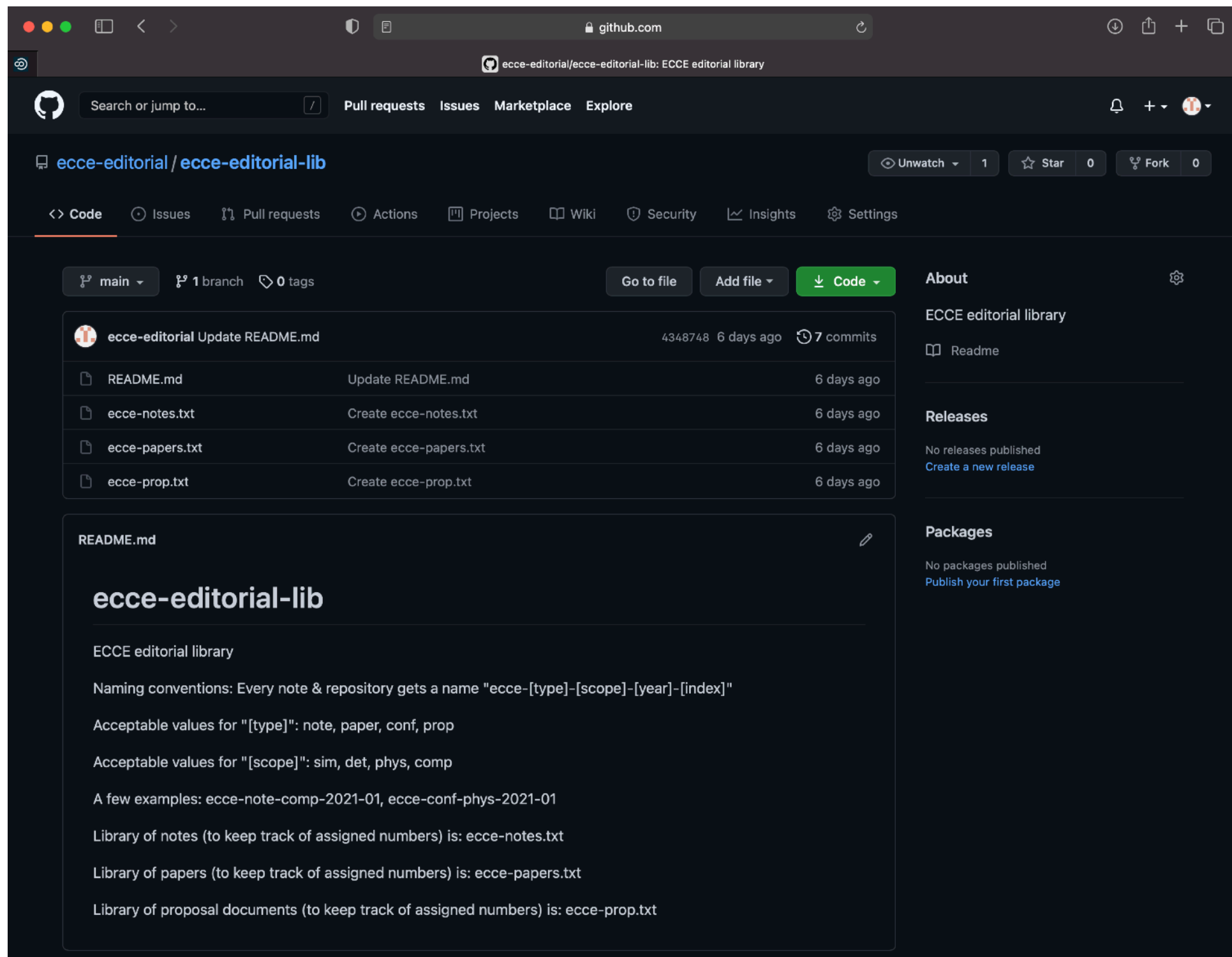
first note on the way, with a simple naming convention established

# Naming convention

- **Need simple, consistent scheme to assign to documents as they are created**
  - ecce-[category]-[scope]-[year]-[index]
  - [category]: note, paper, conf, prop
  - [scope]: sim, det, phys, comp
  - year is year of document creation (not submission)
  - index is just the next available one (assume 2 digits? 3?)
- **Examples**
  - ecce-note-comp-2021-01
  - ecce-conf-phys-2021-01
- **Presuming that “prop” will just contain the proposal, and addenda, while notes will go into the “note” category**



# Current “Document DB”



OK for this week, but not after december

ecce-notes / ecce-note-comp-2021-01

Watch

0

Star

0

Fork

0

<> Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

...

main

1 branch

0 tags

Go to file

Add file

Code

ecce-editorial

Add ecce-note number to top of title page.

82a3913

3 days ago

6 commits

README.md	A few words of warning about github/overleaf	3 days ago
bibliography.bib	Add files via upload	3 days ago
main.tex	Add ecce-note number to top of title page.	3 days ago

README.md

ecce-note-comp-2021-01

The github URL for this document is <https://github.com/ecce-notes/ecce-note-comp-2021-01>

Overleaf is <https://www.overleaf.com/project/60c8ec8726f8b14fa6a861ee>

Always make sure you pull from GitHub when working with the overleaf!

About

No description, website, or topics provided.

Readme

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Languages

TeX 100.0%

overleaf link provided in README.md

Menu

↑

ecce-note-comp-2021-01

Review

Share

Submit

History

Chat

Source

Rich Text

View warnings (3)

bibliography.bib

main.tex

README.md

```

1 # ecce-note-comp-2021-01
2
3 The github URL for this document is
4 https://github.com/ecce-notes/ecce-note-comp-2021-01
5
6 Overleaf is https://www.overleaf.com/project/60c8e
7 c8726f8b14fa6a861ee
8
9 Always make sure you pull from GitHub when working
10 with the overleaf!

```

ecce-note-comp-2021-01

ECCE Computing Plan

Cristiano Fanelli, David Lawrence, ... TBD

May 2021

1 Introduction

2 Artificial Intelligence/Machine Learning

3 Online

3.1 Data Acquisition

3.2 Monitoring

4 Offline

4.1 Reconstruction

4.2 Simulation

5 Offsite Processing

6 Resource Requirements Summary

CPU Compute(Geom-h)	year-1	year-2	year-3
Online			
Offline Recon.			
Analysis			
ATLAS			
TOTAL			

Table 1: Caption

GPU Compute(Geom-h)	year-1	year-2	year-3
Online			
Offline Recon.			
Analysis			
ATLAS			
TOTAL			

Table 2: Caption

Storage(PB)	year-1	year-2	year-3
Data (week)			
Disk (week)			
Time (not deprecated)			
TOTAL			

Table 3: Caption

References

[1] sPHENIX Computing Plan, 2019. <https://indico.bnl.gov/event/6658/attachments/package>

[2] R. Abol Khak, et. al. Eic yellow report v1.1, 2021. [http://www.esap.org/web/sites/default/files/yellow\\_report\\_v1.1.pdf](http://www.esap.org/web/sites/default/files/yellow_report_v1.1.pdf).

overleaf is...overleaf

Download

Source PDF

Actions

- Copy Project
- Word Count

Sync

- Dropbox
- Git
- GitHub

Settings

Compiler pdfLaTeX

TeX Live version 2020

Main document main.tex

Spell check English

Auto-complete On

Auto-close Brackets On

Code check On

Editor theme overleaf

Review Share Submit History Chat

View warnings (3)

### GitHub Sync

This project is synced with the GitHub repository at [ecce-notes/ecce-note-comp-2021-01](https://github.com/ecce-notes/ecce-note-comp-2021-01)

No new commits in GitHub since last merge.

Push Overleaf changes to GitHub

Close

ECCE Computing Plan

Cristiano Fanelli, David Lawrence, ... TBD

May 2021

roduction

ificial Intelligence/Machine Learning

line

ata Acquisition

onitoring

line

reconstruction

imulation

ite Processing

source Requirements Summary

CPU Compute(Mcore-hr)	year-1	year-2	year-3
Online			
Offline Recon.			
Analysis			
AI/ML			
TOTAL			

Table 1: Caption

1

GPU Compute(Gcore-hr)	year-1	year-2	year-3
Online			
Offline Recon.			
Analysis			
AI/ML			
TOTAL			

Table 2: Caption

Storage(PB)	year-1	year-2	year-3
Disk (work)			
Disk (cache)			
Tape (arch. duplicates)			
TOTAL			

Table 3: Caption

References

[1] sPHENIX Computing Plan, 2019. <https://indico.bnl.gov/event/6609/attachments/packages>

[2] R. Abdul Khadek, et. al. Ex. yellow report v1.1, 2021. [http://www.eic.org.org/web/sites/default/files/Yellow\\_Report\\_v1.1.pdf](http://www.eic.org.org/web/sites/default/files/Yellow_Report_v1.1.pdf)

When changes made, click on “GitHub” in side menu to reveal buttons to pull from or push to GitHub

main 1 branch 0 tags

Go to file

Add file

Code

About

No description, website, or topics provided.

Readme

releases over here

Releases

No releases published  
Create a new release

Packages

No packages published  
Publish your first package

Languages

TeX 100.0%



ecce-editorial Add ecce-note number to top of title page.

82a3913 3 days ago 6 commits



README.md

A few words of warning about github/overleaf

3 days ago



bibliography.bib

Add files via upload

3 days ago



main.tex

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README.md



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Overleaf is <https://www.overleaf.com/project/60c8ec8726f8b14fa6a861ee>

Always make sure you pull from GitHub when working with the overleaf!

The Electron-Ion Collider  
A machine that will unlock the secrets of the strongest force in nature

Search

UploadCommunities

Log in

May 26, 2021

PresentationOpen Access

ECCE Status

Horn, Tanja

ECCE status presented at the 5th ECCE institutional board meeting, held online on 24 May 2021.

Preview

Page: 2 of 23

- + Automatic Zoom

ECCE Highlights – last few months

ECCE

Much activity – moving at a rapid pace to meet the global timeframe

✓

□ 26 February: first IB meeting

✓

□ 5 March: IB approves the Consortium Structure

□ March 2021

✓

○ Team Conveners were selected

✓

○ Additional institutions joined the effort – now at 76 institutions

✓

○ Team Conveners added WG co-conveners

✓

○ Mailing lists were set up

✓

○ Indico pages were set up

✓

□ 2 April: 1st Simulations Workshop was held

✓

□ 9 April: Start of PWG/DWG meetings and simulation efforts

□ April 1st - ~May 20th: Start up activities

✓

○ Finish implementing initial ECCE setup in Fun4All.

✓

○ Identify technology alternatives to study with Fun4All.

✓

○ Identify key physics processes to address physics of NAS/YR

✓

○ Collected required event generators

✓

○ Wiki was setup to collect information

2

Files (3.2 MB)

NameSize

Publication date:

May 26, 2021

DOI:

DOI 10.5072/zenodo.74

Keyword(s):

ECCEECCE IB

Communities:

The ECCE detector at the EIC  
Electron-Ion Collider

License (for files):

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Versions

Version 1

May 26, 2021

10.5072/zenodo.74

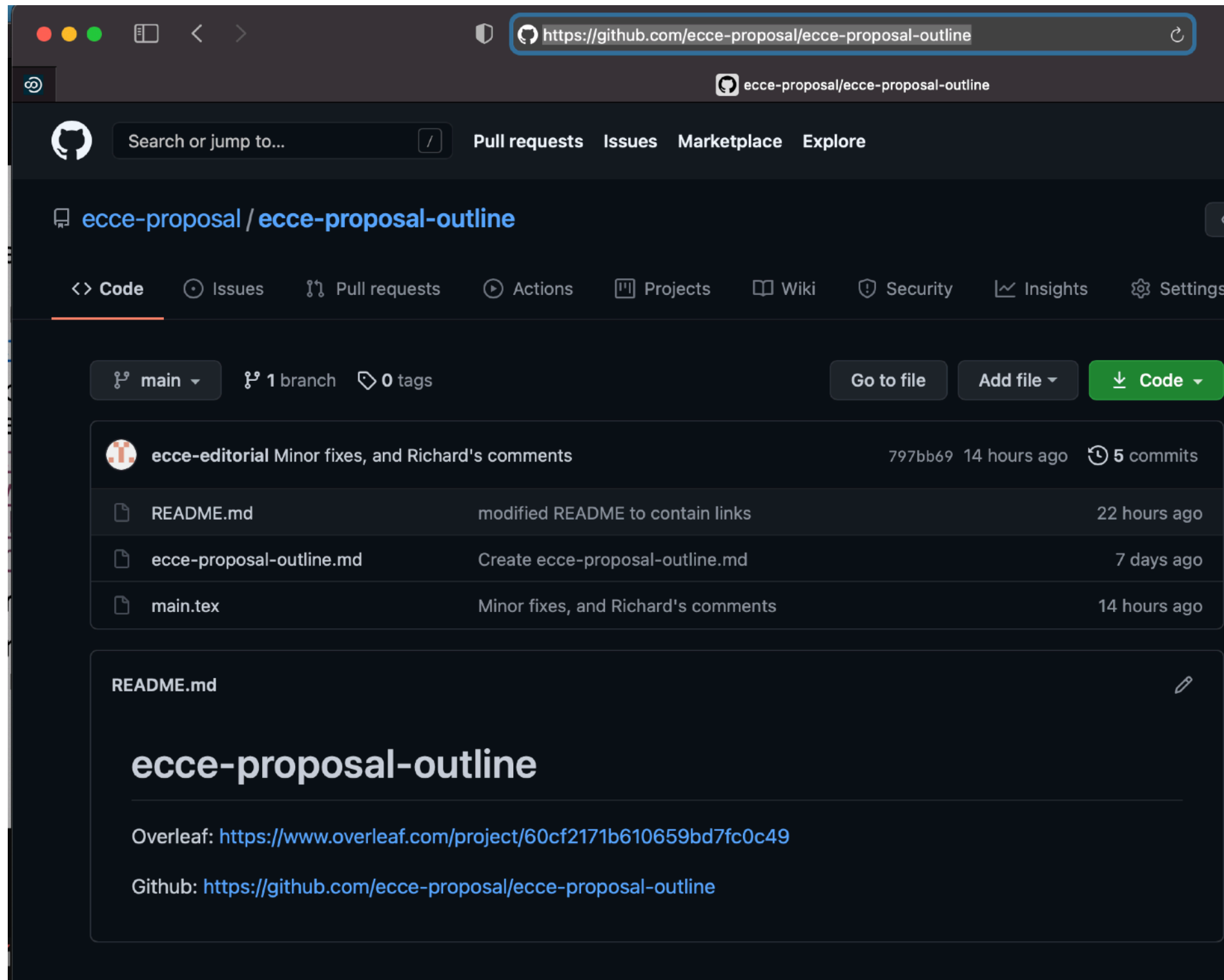
Cite all versions? You can cite all versions by using the DOI 10.5281/zenodo.73. This DOI represents all versions, and will always resolve to the latest one. Read more.

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Cite as



# Proposal outline



<https://github.com/ecce-proposal/ecce-proposal-outline>

# Proposal outline

The screenshot displays a LaTeX editor interface for a document titled "ecce-proposal-outline". The left sidebar shows a file explorer with "main.tex" selected. The central editor shows LaTeX source code for a document outline, including package loading, counter settings, and sectioning commands. The right sidebar shows a "Contents" table of contents.

**File outline:**

- I. EIC science with the ECCE detector (40 pages)
  - A. Key physics drivers (3 pages) and connection to EIC WP/YR and NAS report (3 pages)
    - 1. Longitudinal spin of nucleon
      - FL etc
    - 2. Transverse motion of quarks and gluons inside the nucleon
      - TMDs in ep, eA with inclusive and SIDIS
    - 3. Spatial distribution of quarks and gluons inside mesons, nucleons, and nuclei
      - a. DVCS, DVMP
    - 4. Gluon saturation in nuclei
      - a. nPDF, FL, inclusive & diffractive charm, inclusive diffraction
    - 5. Hadronization - jets
  - B. Detector design (21 pages)
    - 1. Discussion of EIC experimental IRs (1 page?)
      - a. IR6
      - b. IR8
    - 2. Charged-particle tracking (6 pages)
      - a. BaBar 1.5T solenoid
      - b. Barrel silicon tracker, MPGD
    - c. Forward
      - i. Hadron endcap: Si tracker, MPGD

**Contents:**

- I. EIC science with the ECCE detector (40 pages) 4
  - 1.1 A. Key physics drivers (3 pages) and connection to EIC WP/YR and NAS report (3 pages) 4
    - 1.1.1 1. Longitudinal spin of nucleon 4
      - 1.1.1.1 FL etc 4
    - 1.1.2 2. Transverse motion of quarks and gluons inside the nucleon 4
      - 1.1.2.1 TMDs in ep, eA with inclusive and SIDIS 4
    - 1.1.3 3. Spatial distribution of quarks and gluons inside mesons, nucleons, and nuclei 4
      - 1.1.3.1 a. DVCS, DVMP 4
    - 1.1.4 4. Gluon saturation in nuclei 4
      - 1.1.4.1 a. nPDF, FL, inclusive & diffractive charm, inclusive diffraction 4
    - 1.1.5 5. Hadronization - jets 4
  - 1.2 B. Detector design (21 pages) 5
    - 1.2.1 1. Discussion of EIC experimental IRs (1 page?) 5
      - 1.2.1.1 a. IR6 5
      - 1.2.1.2 b. IR8 5
    - 1.2.2 2. Charged-particle tracking (6 pages) 5
      - 1.2.2.1 a. BaBar 1.5T solenoid 5
      - 1.2.2.2 b. Barrel silicon tracker, MPGD 5
      - 1.2.2.3 c. Forward 5
        - 1.2.2.3.1 i. Hadron endcap: Si tracker, MPGD 5
        - 1.2.2.3.2 ii. Electron endcap: Si tracker, MPGD 5
    - 1.2.3 3. Calorimetry (6 pages) 5
      - 1.2.3.1 a. Barrel 5
        - 1.2.3.1.1 i. Barrel EM (eID) 5
        - 1.2.3.1.2 ii. Barrel Had (sPHENIX HCal) 5
      - 1.2.3.2 b. Hadron endcap 5
        - 1.2.3.2.1 i. Forward EM (W/SciFi, W or Pb Shashlik) 5
        - 1.2.3.2.2 ii. Forward Had (Pb/Sc, Fe/Sc) 5
      - 1.2.3.3 c. Electron endcap 5

section titles contain “outline” notation, but every section is a latex chapter, section, subsection, subsubsection, “subsubsubsection”...



# Proposal outline

- **Several functions**
  - a substantive list of what will go in the document
  - a dress rehearsal for the full document structure
  - scope exercise for supporting notes
  - test out GitHub/overleaf workflow
- **Several assignments for collaboration**
  - Is the overall structure acceptable? Are the rough page counts OK?
  - ECCE teams need to start populating lists of expected notes (& page expectations)
    - *e.g. one note per analysis? one per NAS topic?*
    - *Either way, important to get a sense of the total editorial task*
    - *I expect YR size by the end of this!*
  - People can use the collaborative tools to make changes (e.g. change structure, add notes)
  - They can also use the issue tracking to open discussions, which can be “closed” when the issue is resolved
- **We will probably learn quickly if we need a fork/pull request model**
  - Nominal assumption is that we will not
- **Still TBD**
  - Adapt sPHENIX/YR latex template to make note initialization turnkey