

editorial/project team update

Peter Steinberg, BNL/ ECCE biweekly meeting / 19 July 2021

ecce editorial/project team: Tom Cormier, Richard Milner, PAS

Brief update on proposal

- **Still requesting input into proposal outline**
 - <https://github.com/ecce-proposal/ecce-proposal-outline>
 - *Carlos & Rosi added 32(!) individual notes to supporting material (next slide!)*
 - *To be added: topical notes to support main ECCE physics case (i.e. directly keyed to NAS/YR topics), presumably scoped out by godparents*
 - Similar lists from detector, DAQ/computing, would be most welcome!
- **Proposal team not managing production or review of support notes (just focusing primary proposal)**
 - This is responsibility of the main conveners
 - However, we are developing latex templates (ready by next week) and will support a standard workflow to help anyone who requests it
 - *Current procedure is to email me (steinberg@bnl.gov) and I provide repository (with name, as per conventions outlined last time)*
 - *In principle groups can also work on their own, and reintegrate later*
- **Next steps: start writing!**
 - develop collaboration structure section in proposal

Physics notes

3.2 B. Physics

3.2.1 1. Inclusive processes

3.2.1.1 a. Resolution studies:

1. Resolution studies: Comparison of different reconstruction methods (lepton, Jacquet-Blondel, double-angle)
2. Resolution studies: Resolutions at different kinematics (relevant for fast-smearing studies)
3. Background simulation studies: Purity/contamination, uncertainties
4. Physics analysis: Unpolarized structure functions F_2, F_L
5. Physics analysis: Low Q^2 studies
6. Physics analysis: Polarized structure function g_T

3.2.2 2. Semi-inclusive DIS

1. Kinematic DIS and SIDIS resolutions
2. Sivers/Collins simulation and results
3. SIDIS helicity simulation and results
4. Di-hadron simulation and results
5. Spin-independent TMDs simulation and results

3.2.3 3. Exclusive processes

1. DVCS (eP)
2. DVCS (He)
3. DVMP (J/Ψ)
4. DVMP (π^0)

3.2.4 4. Diffraction & tagging

1. Meson form factors
2. Meson structure functions
3. Neutron spin structure
4. Diffractive J/Ψ in eA
5. U-channel π^0 production
6. Short-range correlations in quasi-elastic eA

3.2.5 5. Jets and heavy flavor

1. D and B meson R_{eA}
2. Charmonium R_{eA}
3. Jet R_{eA}
4. HF mass distribution (\rightarrow mass resolution, S/B)
5. JER, JES, jet angular resolution

3.2.6 6. BSM & precision electroweak

1. Extraction of $\sin^2 \theta_W$ from eD 18×100
2. Extraction of $F_1^{\gamma Z}, F_3^{\gamma Z}$ from ep (two energies combined) and eD (two energies combined)
3. Possible limit on BSM physics in AV and VA channels (g_{AV}, g_{VA} analysis) – collaboration with theory groups
4. Analysis of $e \rightarrow \tau$ (CLFV)
5. Analysis of CC physics (mass limit on right-handed W^-)
6. Beam parity quality control: uncertainty on helicity-asymmetry measurements

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)*

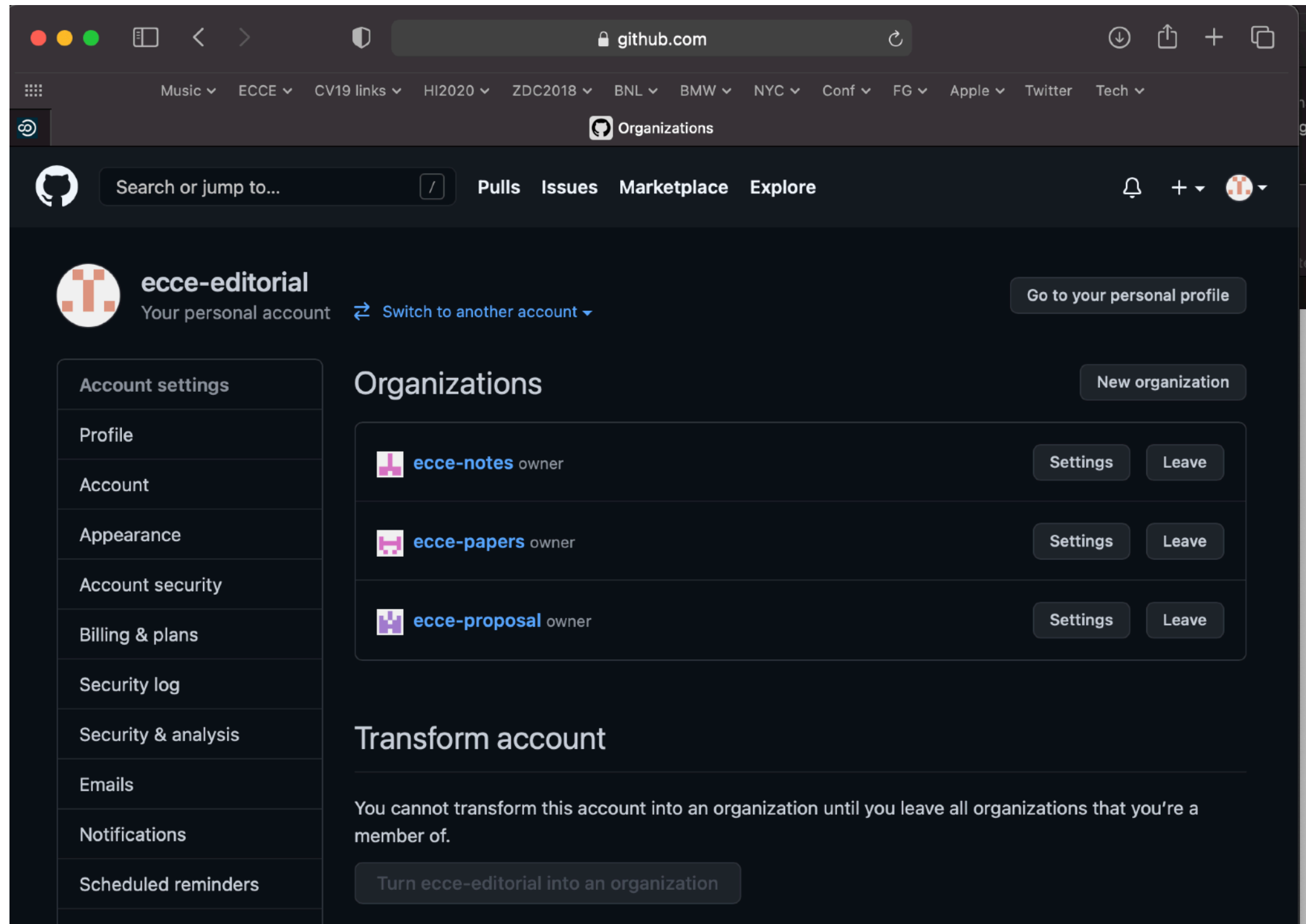
- **Document production and distribution**

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

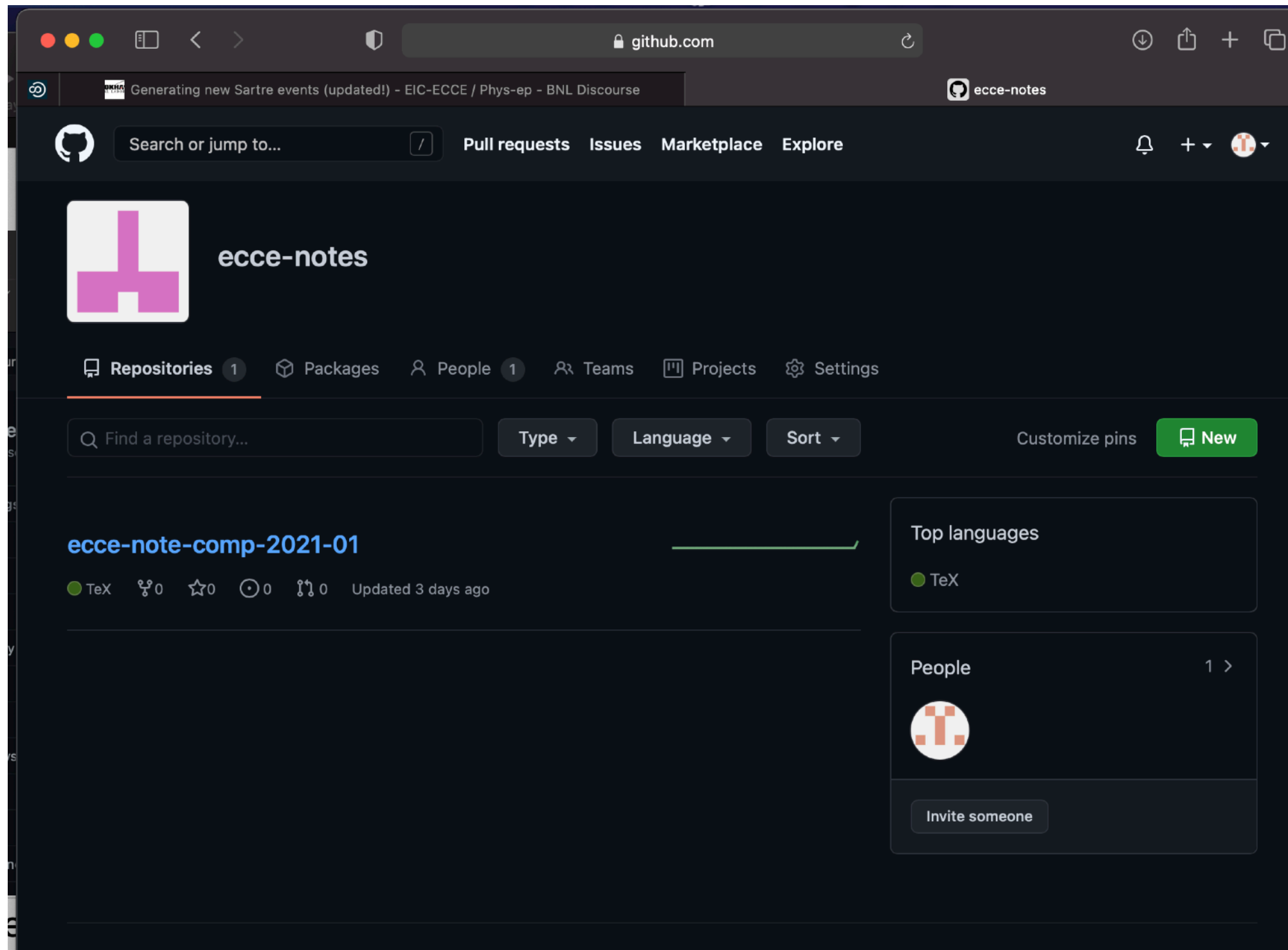
ECCE proceeding its move to discourse!

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

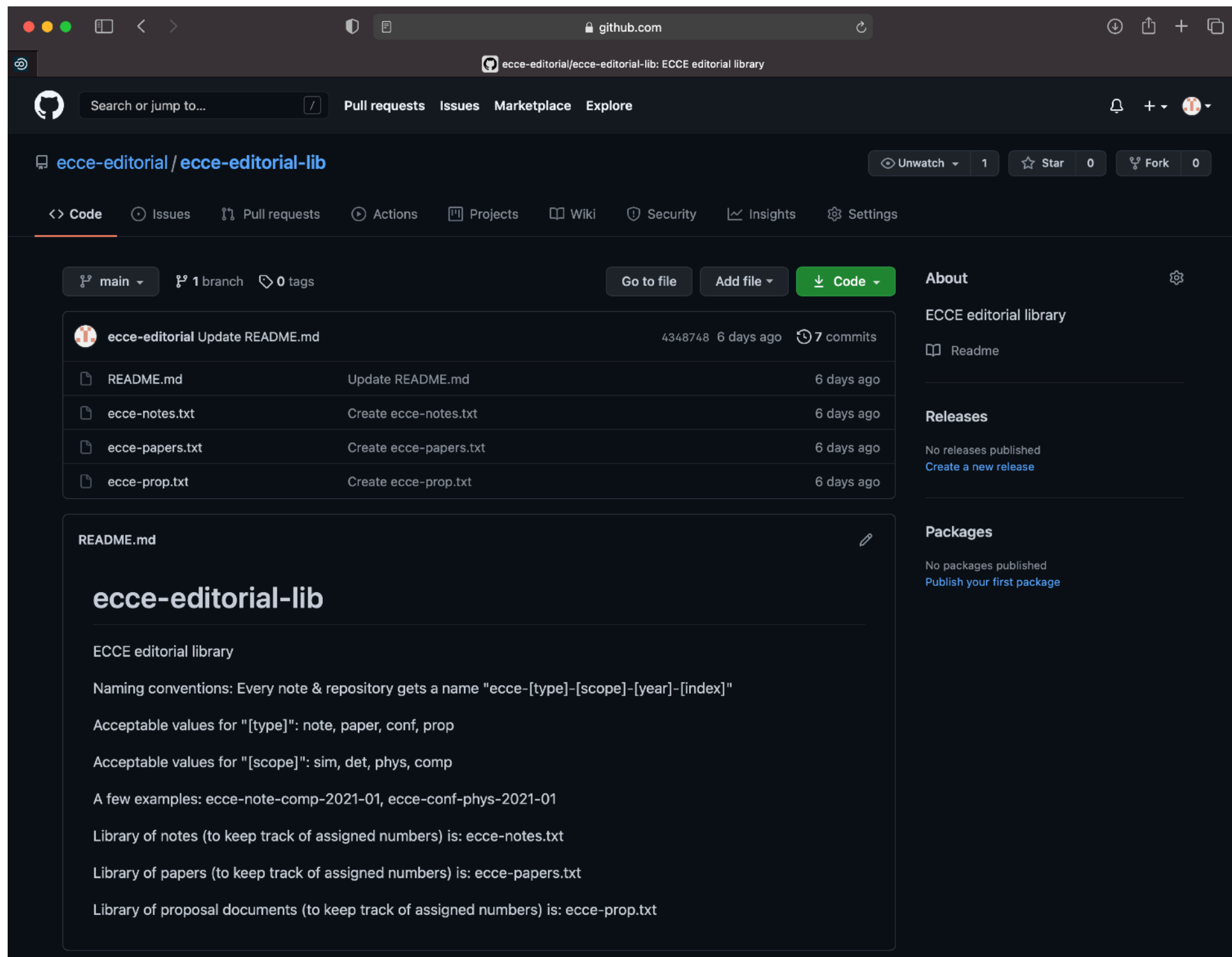


first note on the way, with a simple naming convention established

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

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<> 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.

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TeX 100.0%

overleaf link provided in README.md

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Source PDF

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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](#)

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

mulation

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

CPU Compute(Mcore-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 (incl. 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

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



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Readme

releases over here

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

82a3913 3 days ago 6 commits

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README.md



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

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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)

Name	Size
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Publication date:

May 26, 2021

DOI:

DOI10.5072/zenodo.74

Keyword(s):

ECCEECCE IB

Communities:

The ECCE detector at the EIC
Electron-Ion Collider

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Versions

Version 1

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