



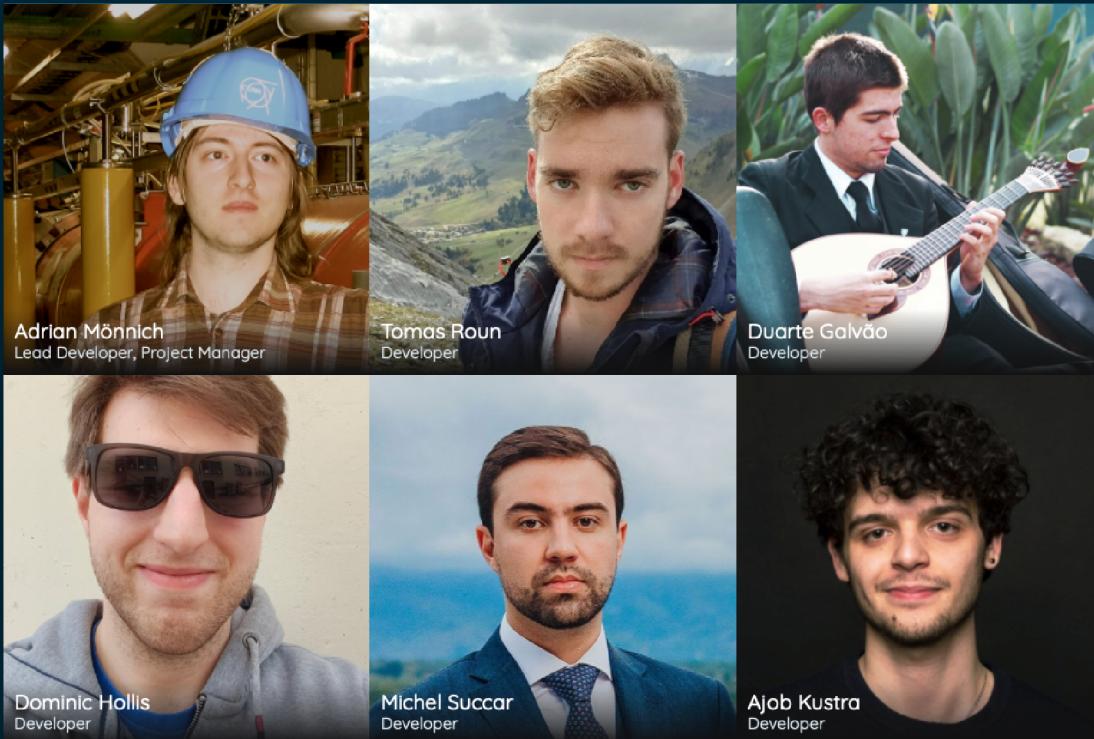


*8 years of Indico-JACoW collaboration*

Duarte Galvão (IT-CA-CTE)

**IT-CA Group Meeting** (*December 2024*)

# Team



# Team



Adrian Mönnich  
Lead Developer, Project Manager



Tomas Roun  
Developer



Duarte Galvão  
 old JACoW guy



Dominic Hollis  
Developer



Michel Succar  
 new JACoW guy



Alob Kustra  
Developer



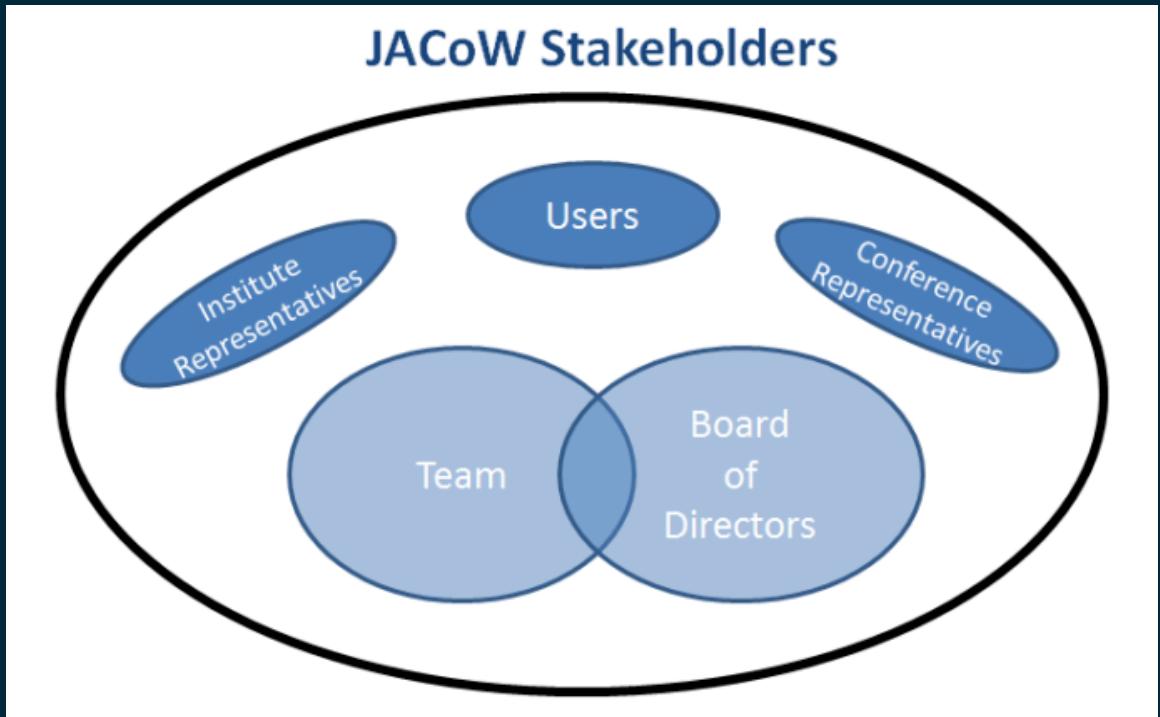
What is a "JACoW"?

[Home](#)[Proceedings](#)[Authors](#)[Organizers / Editors](#)[JACoW Team](#)[About](#)[Contacts](#)

## Joint Accelerator Conferences Website

The Joint Accelerator Conferences Website (JACoW) is an international collaboration that publishes the proceedings of accelerator conferences held around the world. All conferences agree to the [policies and requirements for publication](#). Originally created for the publication of the proceedings of the Asian, European, and North American particle accelerator conferences (which in 2010 became the International Particle Accelerator Conference series, or IPAC), today the site hosts the [proceedings](#) of the following JACoW collaboration conferences:

ABDW	DIPAC	HIAT	LINAC	RuPAC
APAC	EBIST	IBIC	MEDSI	SAP
BIW	ECRIS	ICALEPCS	NAPAC	SRF
COOL	EPAC	ICAP	PAC	
Cyclotrons	FEL	IPAC	PCaPAC	



## What is JACoW?

- JACoW is NOT a legal entity
- Members from research institutions from all over the world
- Oversees and provides services for publication of conference proceedings

# What is JACoW? (Institutions)

## Americas

- BNL (Upton, NY, US)
- Cornell University (CLASSE) (Ithaca, NY, US)
- FRIB (East Lansing, MI, US)

- JLAB (Newport News, VA, US)
- LANL (Los Alamos, NM, US)
- LBNL (Berkeley, CA, US)
- LNLS (Campinas, BR)

- ORNL (Oak Ridge, TN, US)
- SLAC (Menlo Park, CA, US)
- TRIUMF (Vancouver, BC, CA)

## Asia-Pacific

- ANSTO (Sidney, AU)
- BARC (Mumbai, IN)
- CIAE (Beijing, CN)
- HU/AdSM (Higashi-Hiroshima, JP)
- IBS (Daejeon, KR)
- IHEP (Beijing, CN)
- IMP (Lanzhou, CN)

- JAEA/J-PARC (Tokai-mura, JP)
- KAERI (Daejeon, KR)
- KBSI (Busan, KR)
- KEK (Ibaraki, JP)
- KIRAMS/KHIMA (Seoul, KR)
- NIRS (Chiba, JP)
- NSRRC (Hsinchu, TW)

- PKU (Beijing, CN)
- RIKEN SPRing-8 Center (Hyogo, JP)
- RRCAT (Indore, IN)
- SLRI (Nakhon Ratchasima, TH)
- SINAP (Shanghai, CN)
- TUB (Beijing, CN)
- VECC (Kolkata, IN)

## Europe, Middle East, Africa

- CELLS-ALBA Synchrotron (Barcelona, ES)
- **CERN (Geneva, CH)**
- CEA/DSM/IRFU (Orsay, FR)
- DESY (Hamburg, DE)
- DLS (Oxford, GB)
- Elettra-Sincrotrone Trieste (Trieste, IT)
- ESRF (Grenoble, FR)
- ESS (Lund, SE)

- GSI (Darmstadt, DE)
- HZB (Berlin, DE)
- HZDR (Dresden, DE)
- IAP/RAS (Nizhny Novgorod, RU)
- IFIC (Valencia, ES)
- INFN/LNF (Frascati, IT)
- ILSF (Tehran, IR)
- KIT (Karlsruhe, DE)

- KACST (Riyadh, SA)
- MAX-lab (Lund, SE)
- PSI (Villigen, CH)
- STFC/DL/ASTeC (Daresbury, GB)
- STFC/RAL/ASTeC (Didcot, GB)
- The University of Liverpool (Liverpool, GB)
- URLS (Rome, IT)

# What is JACoW? (People)

Role	Person
<b>Chair</b>	Adriana Rossi, CERN / 2024-2027
<b>Deputy Chair</b>	Caitlin Hoffman, BNL / 2023-2026
<b>Coordinator</b>	Jana Thomson, TRIUMF / 2024-2027
<b>Directors</b>	Thakonwat Chanwattana, SLRI / 2022-2025 Johan Olander, ESS / 2022-2025 Volker Schaa, GSI / 2022-2025
<b>Regional Support Manager for Asia-Pacific</b>	Takashi Kosuge, KEK (SPMS)
<b>Regional Support Manager for EMEA</b>	Ronny Billen, CERN (SPMS) Jan Chrin, PSI (fileserver)
<b>JACoW-Indico Manager</b>	Ivan Andrian, Elettra Sincrotrone Trieste
<b>Repository Manager</b>	Magdalena Montes-Loera, SLAC Volker RW Schaa, GSI

Role	Name, Affiliation and Dates
<b>JACoW.org Webmaster</b>	Stefano Deiuri, Elettra Sincrotrone Trieste
<b>JACoW.org Content Manager</b>	Sumner Brown Gibbs, ORNL
<b>Proceedings Maintenance</b>	Europe: Ronny Billen, CERN Asia: Kazuro Furukawa, KEK
<b>Indico Support and Development</b>	Adrian Mönnich, CERN Duarte Galvão, CERN Michel Succar Medina, CERN
<b>Co-Opted Team Members</b>	Evelyne Akers, Jefferson Lab Lin Bian, IHEP Beijing David Button, ANSTO Zhichu (Ross) Chen, SARI Stefano Deiuri, Elettra Sincrotrone Trieste Michaela Marx, DESY Meghan McAteer, HZB Vincent Mitts, CAMD/LSU Raphael Mueller, GSI Josh Peters, ANSTO Alumnus Christine Petit-Jean-Genaz, CERN Contributing Retiree John Poole, JP Scientific/CERN Akihiro Shirakawa, KEK Heping Yan, SINAP



Duarte Galvão - IT-CA-CTE (CERN)

## What is JACoW? (Conferences)

- **IPAC** from 2010 (formerly PAC, EPAC, APAC)
- **NA-PAC** from 2011 (formerly PAC)
- **IBIC** from 2012 (European DIPAC and North-American BIW)
- **COOL, CYCLOTRONS, ECRIS, EIC, FEL, HIAT, ICAP, ICALEPCS, ICFA ABDW, LINAC, MEDSI, PCaPAC, RUPAC, SAP, SRF**

# 2000s

# SPMS

- "Scientific Programme Management System"
- Developed by FNAL for JACoW in the early 2000s
- Allowed the handling of users, affiliations, mailing lists, editing conference proceedings, etc.
- It's basically an oracle database using SQL to generate HTML



JACoW Central Repository User Profiles

What is the JACoW Repository?

Username   
Password

Note: This site uses SSL to encrypt your username and password before transmission.  
 You must enter your username name to retrieve your password.

Are you a new user?

Every user requires an account (i.e. username and password) to access the system. JACoW Central Repository requires that you submit your PROFILE DATA when an account is created.. Profile data is basically first and middle names, family name, e-mail address, affiliation and other related information. Your profile may exist if you are a coauthor on an existing contribution.

Search for a Profile, Create a Profile/Account

Browser Requirements

- Netscape 6 (or higher) or MS Internet Explorer 4 (or higher)
- Session Cookies
- JavaScript

Please contact the [JACoW Central Repository Database Administrator](#) with questions, problems or suggestions.  
SPMS Author: Matthew Arena — Fermi National Accelerator Laboratory

16-DEC-24 10:38 (UTC)  
JACoW SPMS Version 11.1.13  
[JACoW Legal and Privacy Statements](#)

[Add Another Affiliation](#) [Add A Private Address](#)**User Affiliation**[Edit Affiliation](#)

European Organization for Nuclear Research (CERN) **Email Address** duarte.galvao@cern.ch  
 Information Technology Department (IT)  
 Esplanade des Particules 1  
 CH - 1211 Geneva  
 Mail Stop  
 PO Box  
 Telephone

**Note:** Your profile must always contain at least one affiliation. You cannot delete the last affiliation. Create a new affiliation first, then delete the unwanted one.

<b>User Information</b>	<b>Citizenship Information</b>
Last (Family) Name Galvão First (Given) Name Duarte Middle Name Alexandre Initials D. A. Gender Male	Country Time Zone GMT Date Format dd-MON-yy hh24:mi 16-DEC-24 10:43 (GMT)
<b>Membership Information</b>	<b>Mailing Lists</b>
Member Affiliation  <b>No</b> APS DPB <b>No</b> European Physical Society <b>No</b> IEEE <b>No</b> IUPAP <b>No</b> Institute of Physics <b>No</b> National Physical Society <b>No</b> TWAS	<b>List Conference</b> <b>No</b> Beam Cooling <b>No</b> International Conference on Cyclotrons and their Applications <b>No</b> International Symposium on Electron Beam Ion Sources and Traps <b>No</b> Electron Cyclotron Resonance Ion Source <b>No</b> International Workshop on Accelerator Science and Technology for Electron-Ion Collider <b>No</b> ICFA ABDW Workshop on Energy Recovery Linacs <b>No</b> International Free-Electron Laser Conference <b>No</b> ICFA ABDW Workshop on Future Light Sources <b>No</b> ICFA ABDW Workshop on Hadron Beams <b>No</b> Heavy-Ion Accelerator Technology <b>No</b> International Beam Instrumentation Conference <b>No</b> International Conference on Accelerator and Large Experimental Physics Control Systems <b>No</b> International Computational Accelerator Physics Conference <b>No</b> Advanced Beam Dynamics Workshops <b>No</b> International Particle Accelerator Conference <b>No</b> Linear Accelerator Conference <b>No</b> Mechanical Engineering Design of Synchrotron Radiation Equipment and Instrumentation <b>No</b> ICFA ABDW Workshop on Nano Beams <b>No</b> North American Particle Accelerator Conference <b>No</b> Personal Computers and Particle Accelerators Controls <b>No</b> Russian Particle Accelerator Conference <b>No</b> Symposium on Accelerator Physics <b>No</b> Superconducting RF <b>Yes</b> JACoW Team Meeting <b>No</b> Test Mailing List <b>No</b> ICFA ABDW Workshop on eeFact

# SPMS (the downfall)

- Became unmaintainable by the early 2010s
- Constant security issues
- Currently hosted at CERN

# 2013

# A Unique Conference Management Tool for CERN and JACoW

This document explains the reasons why CERN and JACoW<sup>1</sup> should converge towards a unique conference management software tool, describes a path for this convergence and the resources needed to bridge this gap and reach a new mutually beneficial state of collaboration.

## Contents

Current situation.....	1
Project Scope.....	2
Project Description.....	2
Necessary Development.....	2
Workpackage 1: Users, Roles and Authentication.....	2
Workpackage 2: System Parameters.....	2
Workpackage 3: Email Manager.....	3
Workpackage 4: Abstracts Management.....	3
Workpackage 5: Paper Review / Proceedings.....	3
Workpackage 6: Classification.....	4
Workpackage 7: Registration Form.....	4
Workpackage 8: Reports and Statistics.....	4
Workpackage 9: Administration.....	5
Workpackage 10: Personalisation.....	5
Development resources.....	5
Proposed Hosted Service.....	5
Conclusion.....	6

## Current situation

For historical reasons, CERN and JACoW use their own internally-developed conference management software packages. They were both created in the early 2000s, and grew in parallel. The SPMS<sup>2</sup> for JACoW is used by all major JACoW conferences, and is developed by Matt Arena from FNAL. Indico<sup>3</sup> is used at CERN (hosting ~330,000 events) and in 160+ institutes

*Executive Summary: The convergence of the CERN Indico software and the JACoW SPMS is of strategic importance for both parties. It could be reached through a 1-person 3.5 years project in 10 work packages. The effort could be reasonably shared between stakeholders and beneficiaries, especially the CERN accelerators and research sectors.*

<sup>1</sup> JACoW web site - <http://www.jacow.org/>

<sup>2</sup> SPMS - <http://www.jacow.org/index.php?n=Tools.SPMS>

<sup>3</sup> Indico CERN server: <https://indico.cern.ch/> Indico distribution web site: <https://indico.github.io/>

# A collaboration is born

- First participation of Indico members in JACoW Team Meeting in December 2013
- First draft for the Indico-JACoW project plan by Thomas Baron in December 2015
- In hindsight: vastly underestimates the work needed

## Development resources

The total resources needed for the implementation of these work packages amount to a total of **35.1 months of work**. A CERN employee working for **three and a half years** could theoretically do the job. A **CERN Fellow** would be the appropriate level of recruitment for this project.

# First kick-off

- A 132-page specification was drafted in April 2016
- Very detailed action items
- Estimated 4 years worth of work in total

This document aims at providing an in-depth analysis of the SPMS features with regards to their Indico counterparts, identifying the features which are already handled by Indico, and those which would need to be added to Indico. It will also provide a porting path and a reliable estimate of the needed resources for the porting.

## Table of Contents

Definitions .....	2
Extensive Listing of SPMS Features .....	3
Login Page.....	3
Modify Your Profile.....	4
Home Page as Abstract Owner.....	5
Home Page as Abstract Owner > Submit New Abstract.....	6
Home Page as Abstract Owner > File Upload .....	7
Home Page as Abstract Owner > Accept/Reject Editors' changes .....	8
Overall Database Administration .....	8
Scientific Program Administration.....	24
Hotel Administration.....	39
Program Committee.....	39
Referee .....	42
Editor/Proceedings Administration.....	46
General.....	77
Registration.....	96
Architecture of the Future JACoW/Indico Service .....	117
List of Features to be implemented in Indico .....	117
General Features .....	117
Email Management [P:medium].....	118
Abstract Management .....	118
File Management [12] .....	120
Session Management.....	121
User search .....	123
Paper Management .....	123
Timetable Management .....	127
Statistics and Report Pages [in days] .....	127
Registration [P:high] .....	129
Summary and Resource Needs.....	130



*JTM'16, Vancouver, Canada*



Duarte Galvão - IT-CA-CTE (CERN)

# But, there was a problem...

## Roles

- Project Manager: Pedro Ferreira
- Development team: PJAS + entire CERN Indico team
- JACoW representative(s): ?

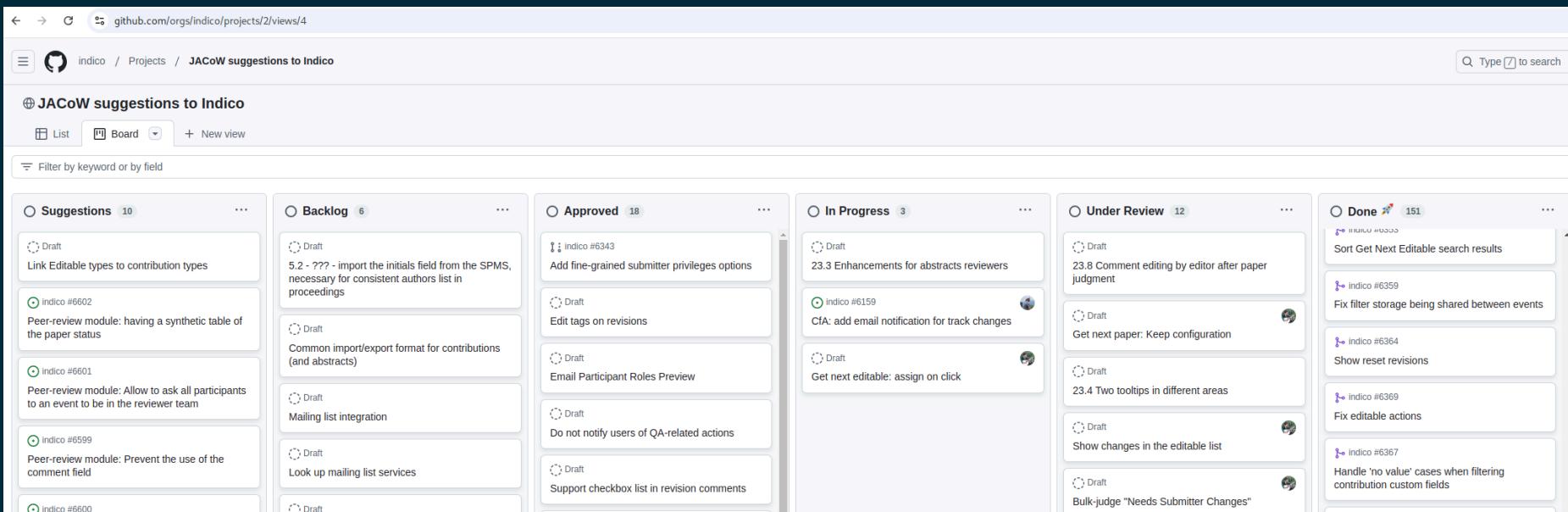


The solution?

WORKING TOGETHER

# Working together

- In 2019, after it was first tested by JACoW members, it wasn't ready to run any conference
  - In 2021, Ivan Andrian (Elettra Sincrotrone Trieste) was designated as the JACoW-Indico Manager
  - Since then, we've regular meetings to keep up with the project's status
  - Started using a Kanban board



# ☁️ Working together ☁️

- In August 2022 JACoW ran its first large conference (fully) on Indico

The screenshot shows the homepage of the FEL2022 conference website. At the top, it displays the conference logo "FEL2022" with a small building icon above the "0". Below the logo, the text "Aug 22–26, 2022" and "Trieste Convention Centre" is displayed, along with "Europe/Zurich timezone". A sidebar on the left contains links for "Overview", "Scientific Program", "Call for Abstracts", "Timetable", "Contribution List", "Author List", "Book of Abstracts", "Mobile App", and "Registration". A section titled "FEL2022 Local Organiser Committee" lists email addresses for "info@fel2022.org", "program@fel2022.org", and "registration@fel2022.org". The main content area features a summary of the conference, details about the location (Trieste Convention Centre, Auditorium Generali, viale Miramare, 24/2, Trieste - Italy), and contact information for Luca Giannessi and Michele Svandrik. It also includes links for "final\_proceedings", "Conference photos", and the "FEL2022-0-logo-header.jpg" file.

- Since 2023, there have been no more conferences run on SPMS

# 🌈 Working together 🌈

- In the past couple of years, we've had a much closer collaboration

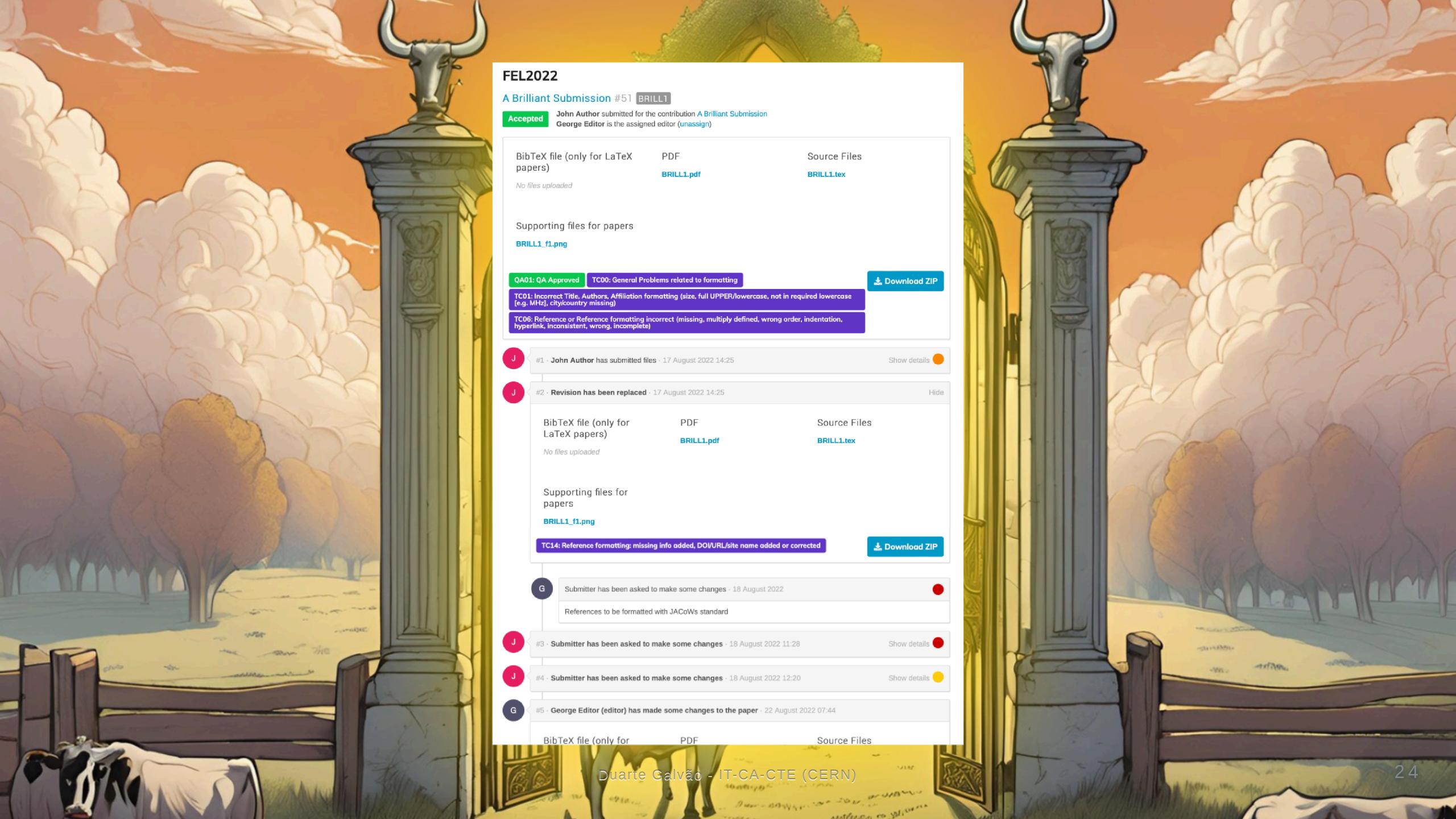


*JTM'23, Hsinchu, Taiwan*



*IPAC'24, Nashville, TN, USA*

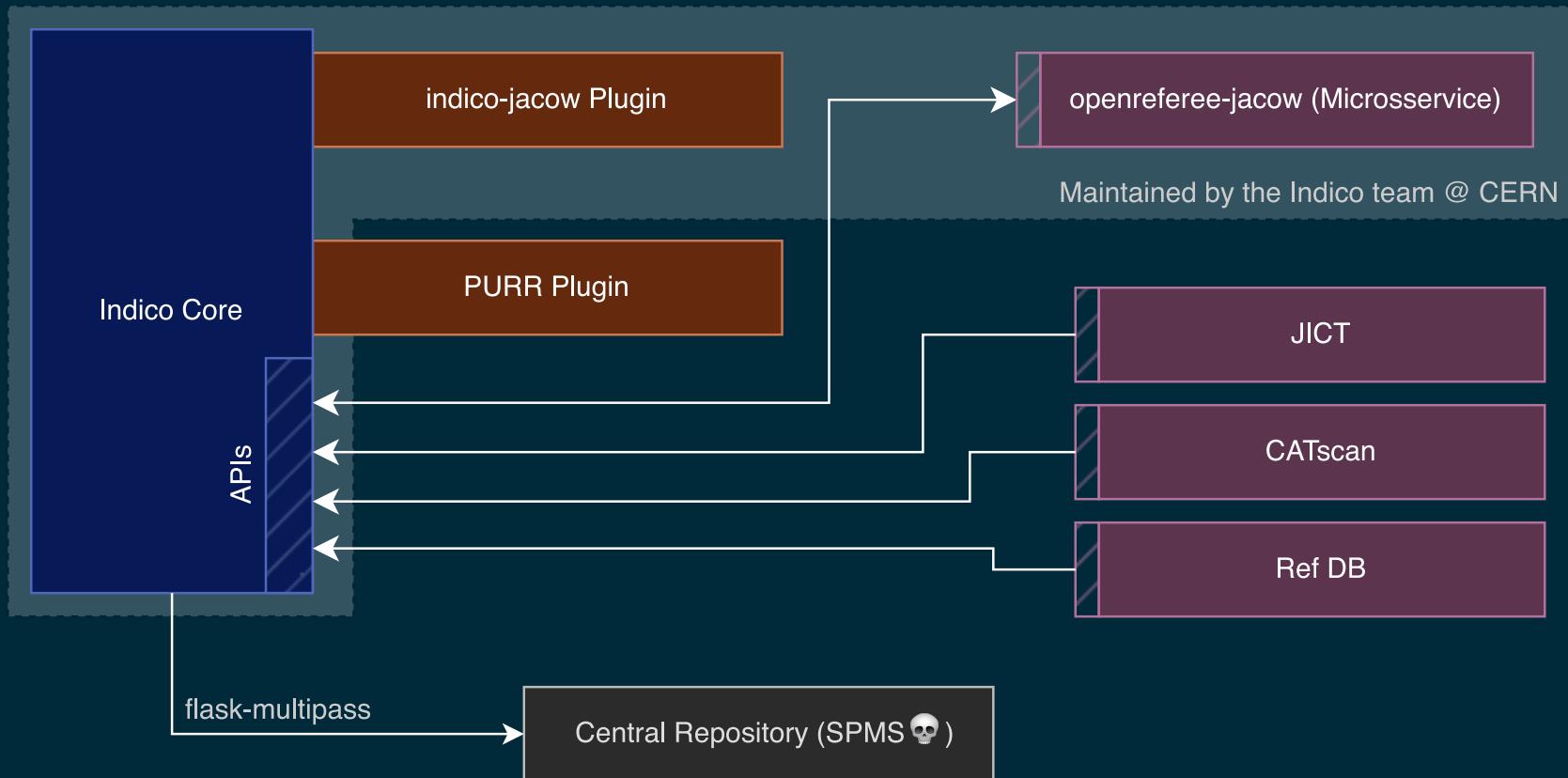
# 2024



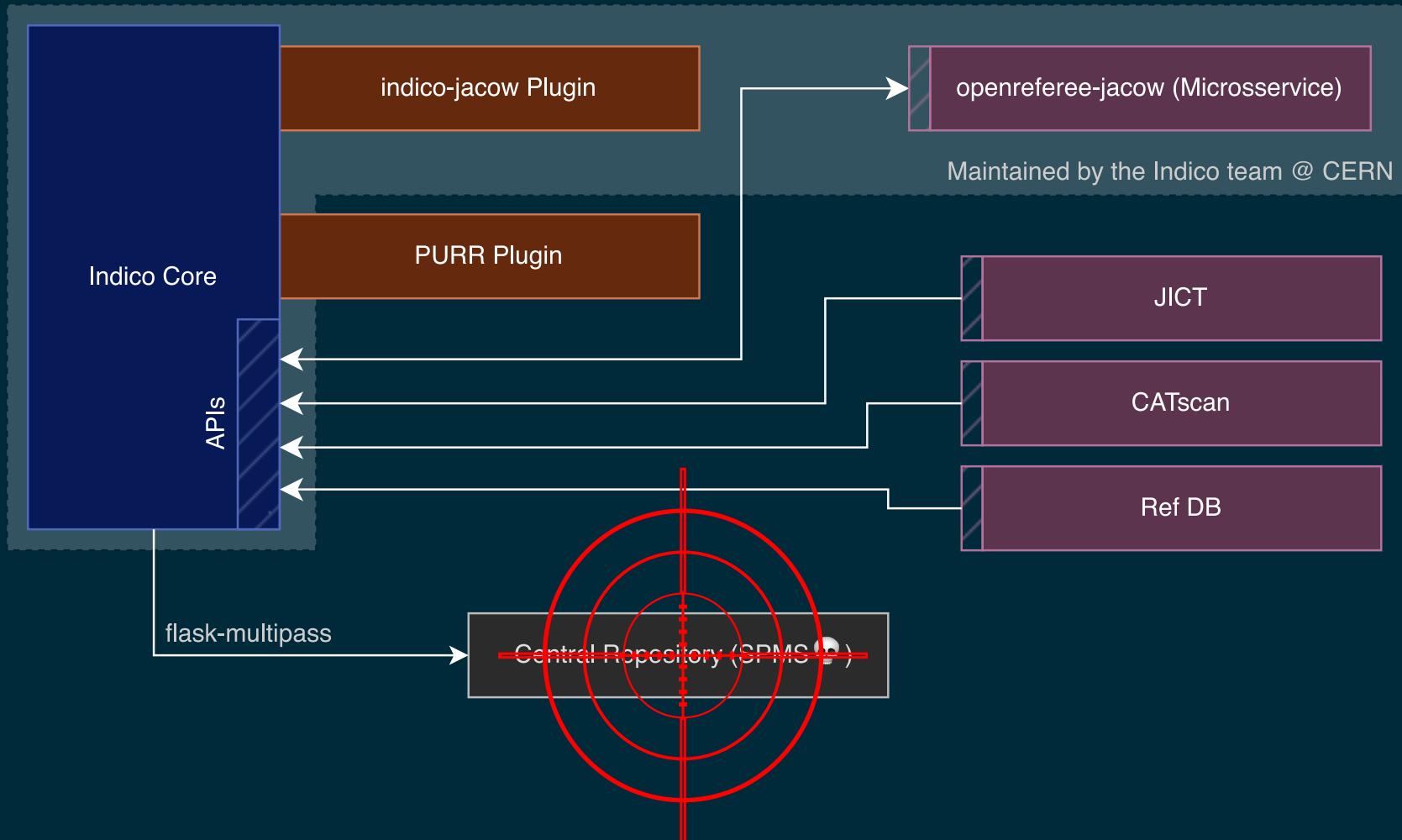
# Our approach to JACoW requests

- Useful for the entire community
  - Indico Core
- Mostly for the JACoW community, but still quite general
  - Indico Core, as a setting
- Specific to JACoW use cases
  - highly linked to Indico
    - JACoW Plugin or Microservice
  - loosely related to Indico
    - JACoW's problem ;)

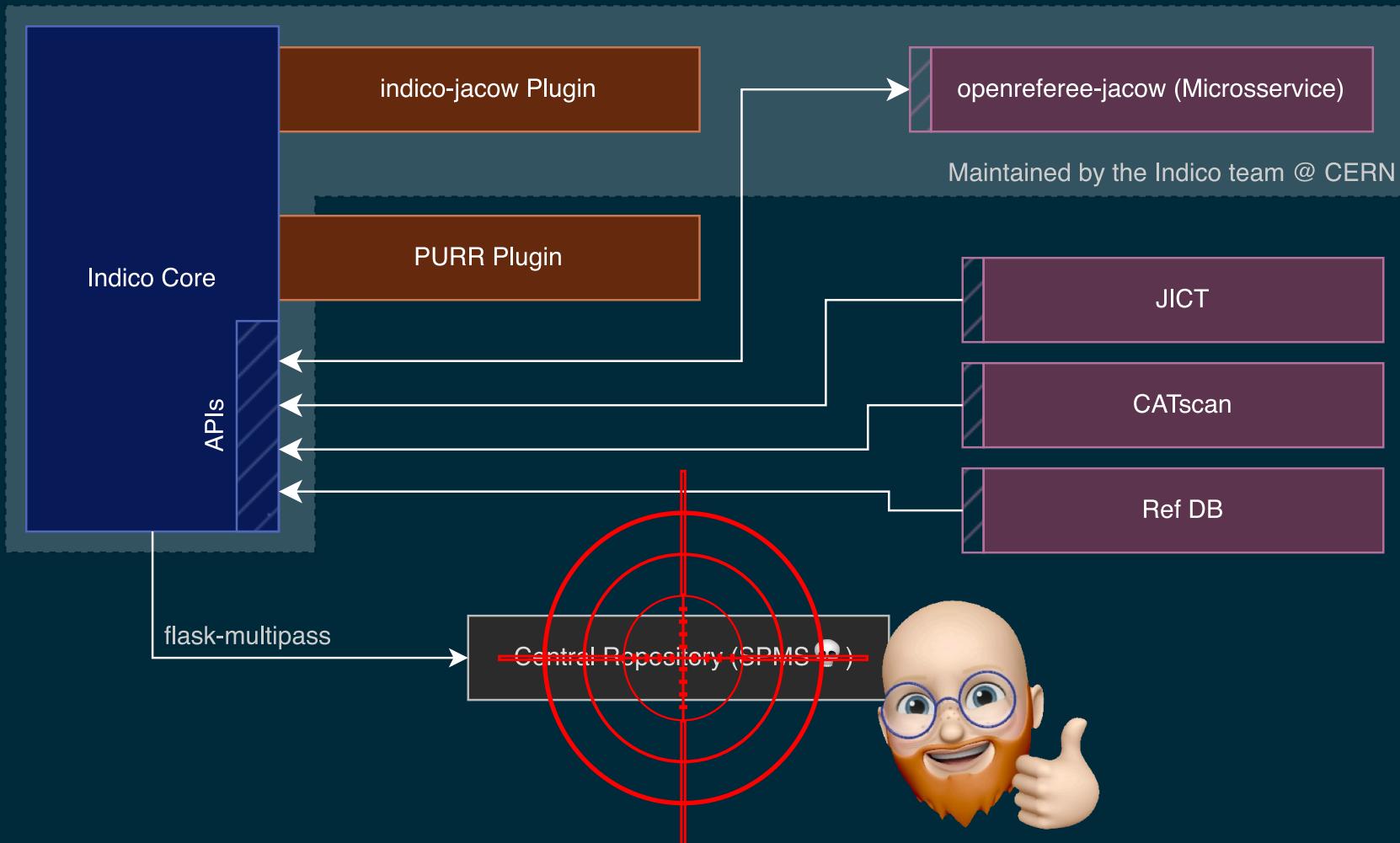
# What is JACoW? (our POV)



# What is JACoW? (our POV)



# What is JACoW? (our POV)



## Past year's progress

- We went to IPAC24

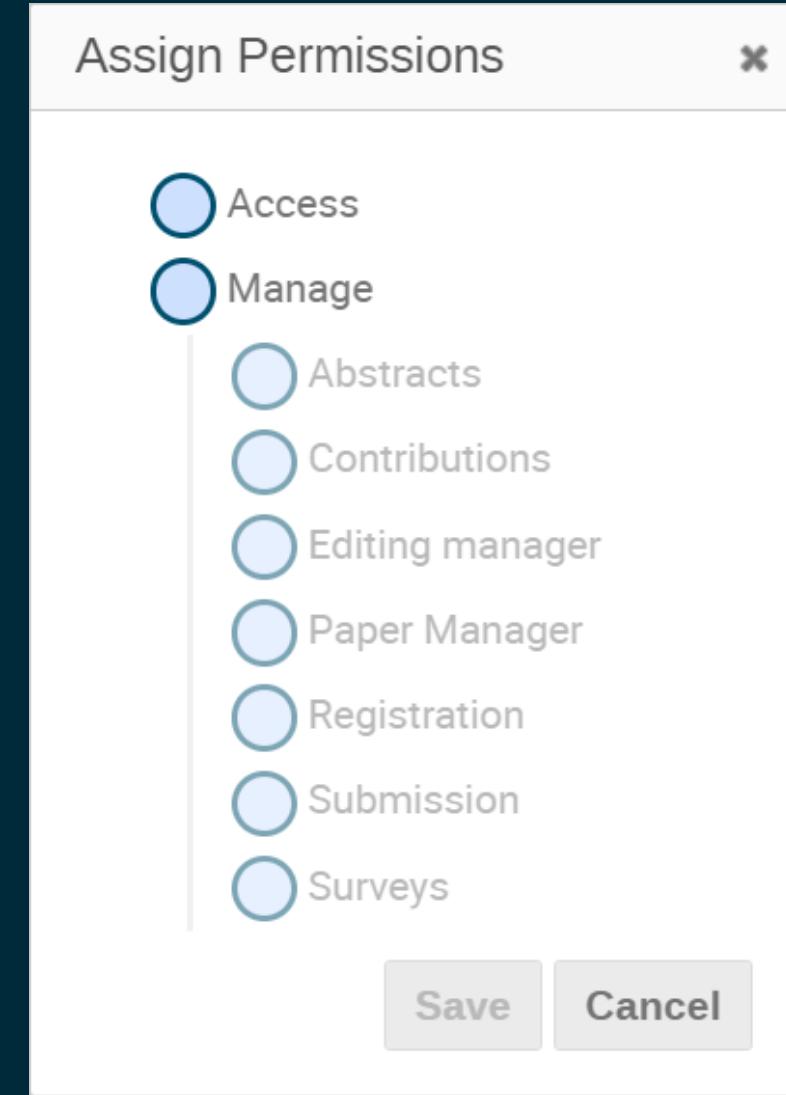


# Past year's progress

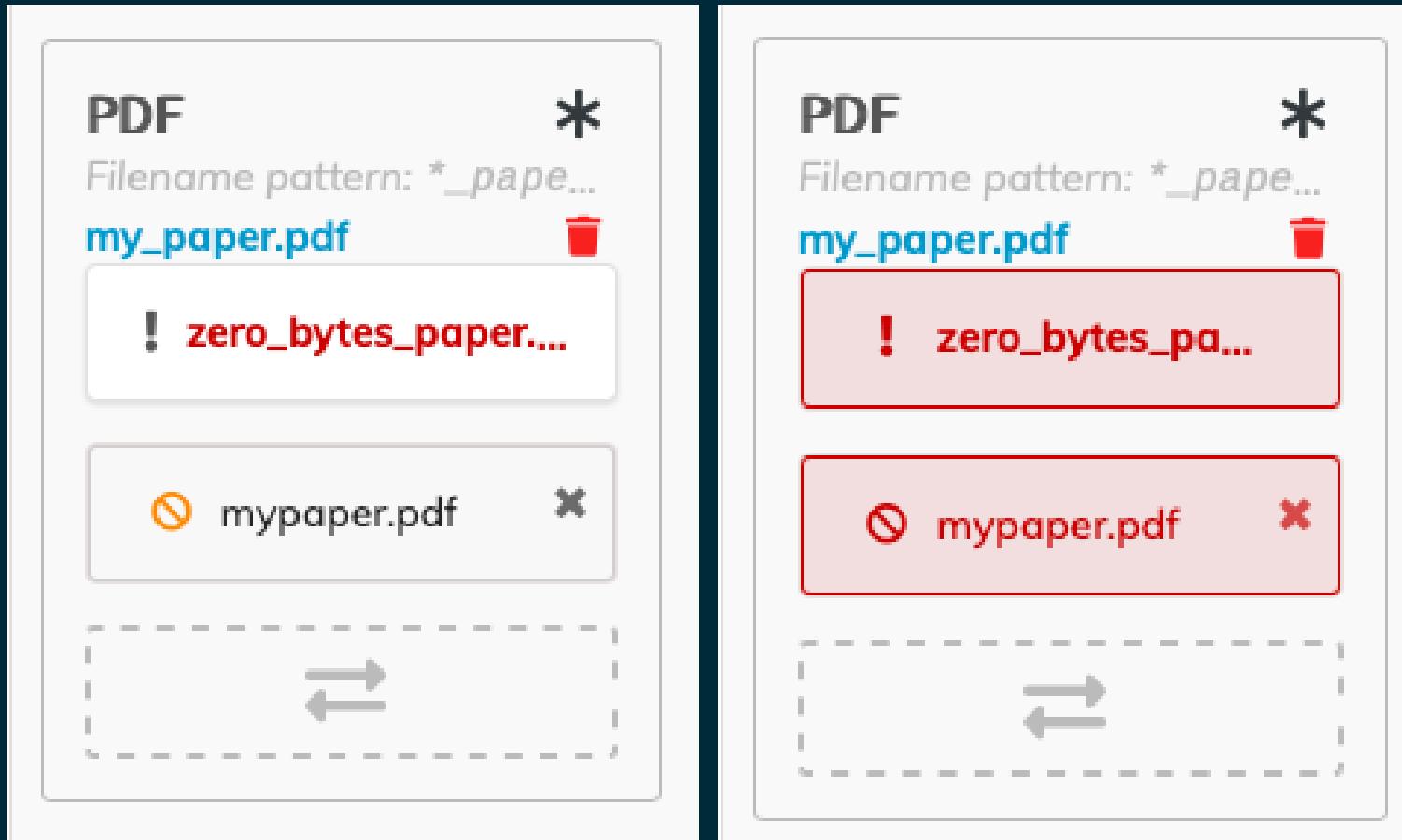
- We went to IPAC24
  - and we took notes!
  - <https://cern.ch/ipac24notes>

Type	Problem	Priority	Solution
New feature	A restricted group of people need to be able to edit the contributions' titles and author lists. However, the only way to allow this is to give them full management access to the whole event, which is confusing for them and can be dangerous.	Low	A new permission type that only allows managing contributions.
New feature	The label for the "internal" setting in comments is "Restrict visibility of this comment to other editors", which caused some confusion regarding whether this means that comments are visible only to other editors or not.	Low	Change the label text to something such as "Restrict visibility of this comment to other editors only".
New feature	On the contribution page, there is a "go to timeline" button that links to its corresponding Editing Timeline. However, this button is only shown the contribution's submitters, meaning that managers and editors need to manually search the editable list to find the corresponding timeline.	Low	Show the button to everyone who has the "can_see_timeline" permission.
New feature	The error messages in the revision files upload form are very discrete - a white box with a red/orange icon. This causes confusion in both submitters and editors, as they often can't tell what's wrong when trying to make a revision.	Medium	Make the error boxes more prominent. Preferably fully red.
Bug	When searching on the "Get Next Editable" dialog, the search results are highlighted but they are not pushed to the top, forcing editors to scroll through hundreds/thousands of editables to find the scattered ones.	Medium	Change display order of editables when applying a search filter.
Bug	When applying a filter on an editable list for papers, it also shows up in the editable list for posters, even though it might not make sense.	Medium	Add an editable type and event id to the session storage key for the filter.
New feature	It is necessary to freeze certain information, namely the contribution's description and title, in order to properly conduct the editing process. However, it is still useful to allow submitters to fix the state.	Medium	Provide more options in the "Submitter Privileges" dialog to enable/disable title, description and persons.
Bug	When doing a Fail QA action (reset_editable) on an editable that has gone from "Needs Submitter Confirmation" to "Approved", only the last revision is undone, and although the editable goes into "ready for review", the actions don't reflect this state, and is instead waiting for submitter confirmation.	High	Ideally no revisions should be undone. An editable should simply be forced on review. We need to check the edits rather than the last revision's state to see which actions can be performed.
New feature	The current way to upload files and approve a revision is to do a "Request Approval" action (marked with a yellow dot) and then, on the confirm button, open a dropdown and select "Confirm and Approve". This creates confusion, since the intended action is to approve and not to request approval. Many editors forget the final "Confirm and Approve" step, and since they cannot judge revisions in the "Needs Submitter Confirmation" (yellow) stage, they have to undo and redo the whole revision, which often means reuploading.	High	Allow uploading files when performing "Approve" judgment, similar to the "Request Changes". This action should create a single "approval" revision containing the files.
New feature	After a revision is made by an editor, it sometimes might be necessary to fix the list of tags. Currently, it is only possible to edit the revision text.	Low	Let the editor edit the tags as well as the revision text.
New feature	There are plans to use an external service to provide mailing lists functionality for JACoW conferences. However, Indico does not support any such integrations.	Low	Display the mailing list preferences in the conference dashboard, with information coming from the provider's API. Additionally, display in the conferences' registration form.

# Contributions ACL permission

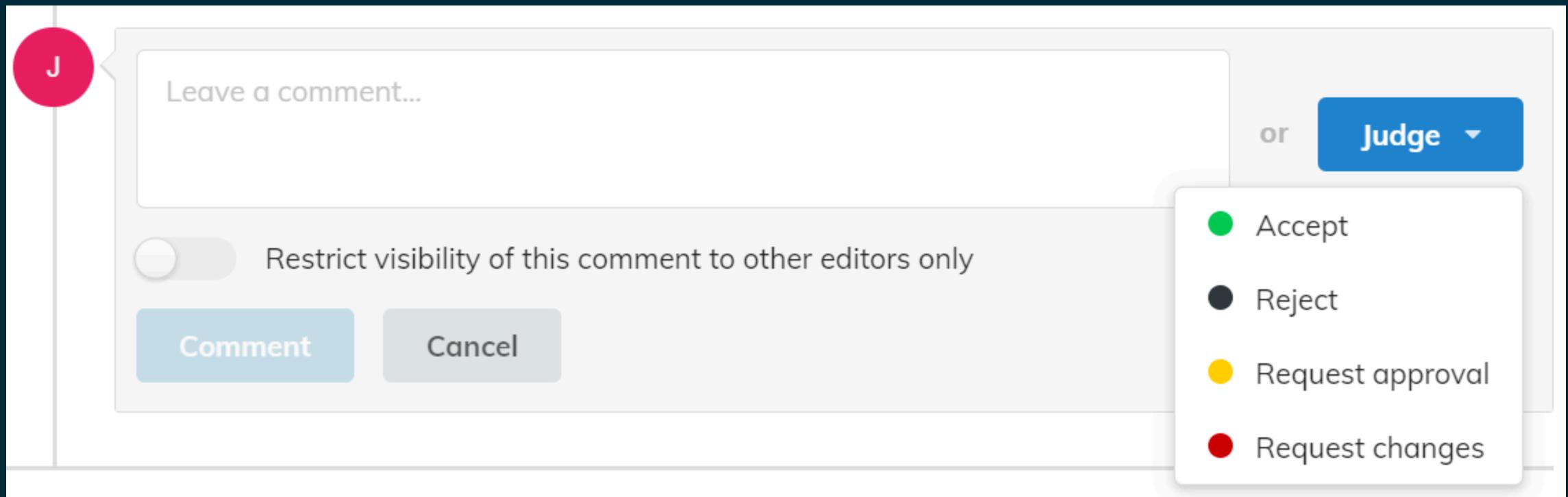


# Revision files upload errors



# Refactor ReviewForm

- Judge button on editing revisions
- Switching between actions on the editing timeline erases comment



# Upload files on "Approve" judgment

Your decision

THIS REVISION NEEDS EDITING

Upload files

PDF \*

pdf

[test\\_pdf.pdf](#)



Tag code or title...

**Judge**

Accept  

## Future of the Indico-JACoW Collaboration

- (Finish) implementing feedback from IPAC24
- Abandon SPMS/Central Repository and use Indico as the sole source of identities
  - Ability to add authors manually after search result returns empty
  - Integration with new mailing list service
  - Implement custom fields for user profiles
  - Add ORCID & ROR integration with user profiles
- UI/UX improvements in Contributions/Abstracts management



Pictured: me presenting to all of the active SPMS developers @ Music City Center, Nashville, TN, USA