





*two decades of history, many more to come*

Duarte Galvão, Michel Succar (CERN)

**JACoW Team Meeting 2024**



The screenshot shows the Indico web interface. At the top, there's a navigation bar with links for 'Home', 'Create event', 'Room booking', and 'My profile'. Below this is a search bar with placeholder text 'Enter your search term' and a 'Create event' button. The main content area is titled 'Main categories' and displays a list of categories with their event counts:

Category	Events
CERN-Related Clubs, Associations and Forums	9,256 events
Committees	12,044 events
Conferences, Workshops and Events	10,460 events
Departments	116,959 events
Directorate	507 events
Experiments	856,409 events
Global Indico	10,523 events
Outreach	2,395 events
Projects	74,220 events
Schools, Seminars and Courses	12,030 events
TEST Category	69 events

To the right of the categories, there's a 'News' section with three items:

- Indico 3.3 (Posted 5 Dec 2023)
- Adding Images to minutes (Posted 29 Aug 2023)
- Indico 3.2 (Posted 19 Jun 2023)

Below the news is an 'Upcoming events' section with several entries:

- Data Science Applications in Physics, Balkan ... (reopening until Friday)
- 10th MEFT Workshop (starts Tomorrow)
- 4th MeV2GeV Workshop (starts Tomorrow)
- Statnett Veit and official signing of MoC (starts Monday)
- 50 years of QCD (starts 31 Jan 2024)
- US Particle Physics for the Next Ten Years (starts 2 Feb 2024)

At the bottom left, there's a CERN logo and the text 'Powered by Indico v3.3 pro'. At the bottom center, there are links for 'Help', 'Contact', 'Terms and conditions', 'URL Shortener', and 'Privacy'.

- **Event Management System**
- **Collaborative effort - MIT License**
- **Core Developed at CERN**
- **With contributions from the United Nations, Max-Planck Institute for Physics and many others!**
- **70+ developers over the years**



*The most popular event management system you never heard about*

- **300+ servers**
- **> 350K users**
- Initial growth in research, but growing beyond it
  - [indico.un.org](http://indico.un.org)
  - [events.canonical.org](http://events.canonical.org)
  - [indico.gnome.org](http://indico.gnome.org)
  - [lpc.events](http://lpc.events)



# indico.un

A FULLY HOSTED  
SOFTWARE AS A SERVICE  
BUILT ON CERN'S  
OPEN-SOURCE  
TECHNOLOGY (INDICO),  
SUPPORTING ON-SITE,  
VIRTUAL, AND HYBRID  
MEETINGS



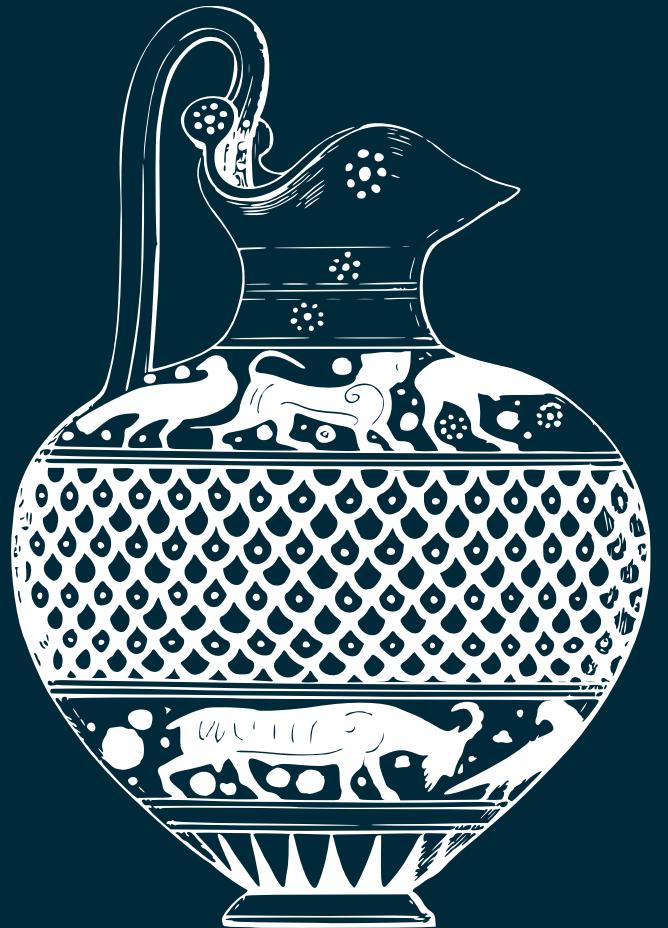
USED BY:



9/10 AVERAGE CUSTOMER  
SATISFACTION



# History



- 1999 - CDS Agenda
- 2002 - EU Project
- 2004 - Indico in Production
- 2007 - Room Booking
- 2008 - Interface overhaul
- 2013 - First Workshop
- 2015 - The UN starts using it
- 2017 - Indico 2.0 (rewrite)
- 2021 - Indico 3.0 (Python 3)
- 2023 - 1 Million Events  
surpassed at CERN 🎉
- 2024 - 20 years!



## Integrated Digital Conferencing

Fact Sheet

### Programme(s)

[FP5-IST - Programme for research, technological development and demonstration on a "User-friendly information society, 1998-2002"](#)

### Topic(s)

[IST-2001-3.4.1 - Semantic Web technologies](#)

### Call for proposal

Data not available

### Funding Scheme

[CSC - Cost-sharing contracts](#)



### Project Information

#### INDICO

Grant agreement ID: IST-2001-34306



Project closed

#### Start date

1 May 2002

#### End date

30 April 2004

#### Funded under

Programme for research, technological development and demonstration on a "User-friendly information society, 1998-2002"

#### Total cost

€ 1 521 461,00

#### EU contribution

€ 1 240 000,00



#### Coordinated by

SCUOLA INTERNAZIONALE SUPERIORE DI STUDI

AVANZATI

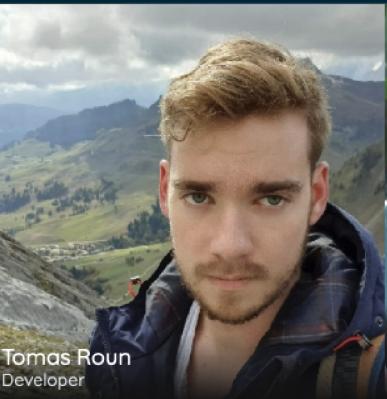


<https://cordis.europa.eu/project/id/IST-2001-34306>

# Team



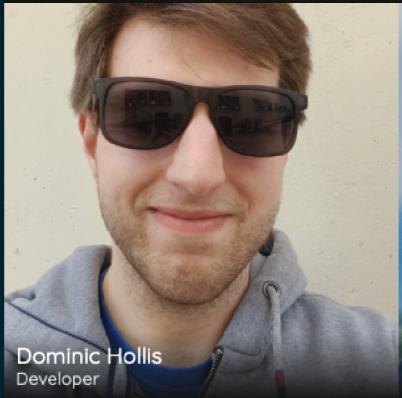
Adrian Mönnich  
Lead Developer, Project Manager



Tomas Roun  
Developer



Duarte Galvão  
Developer



Dominic Hollis  
Developer



Michel Succar  
Developer



Ajob Kustra  
Developer



Pedro Ferreira  
Section Leader, IT-CA-CTE



Germán Cancio  
Group Leader, IT-CA



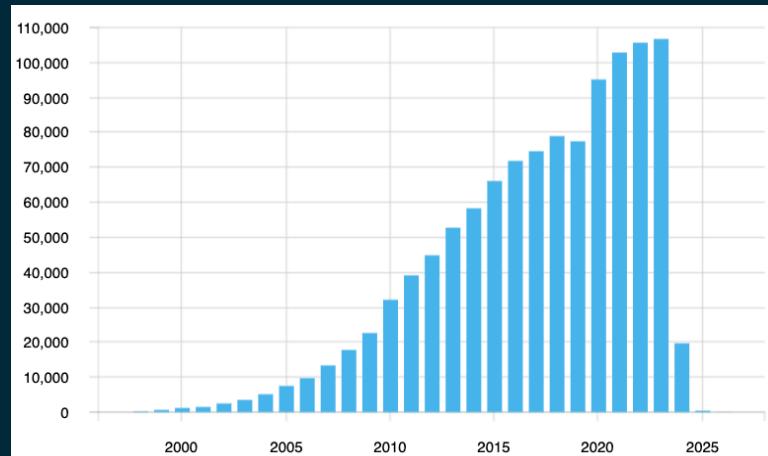
# CERN

- ~17.000 people on campus
- ~230 meeting rooms
- 100.000+ events/year
  - 1.000.000+ events total
- (Distributed) Meetings
- Conferences, workshops

# Adoption at CERN

The 18th International Conference on Strangeness in Quark Matter (SQM 2019) was held in Bari, Italy, from June 10-15, 2019. The website features a header with the conference logo and a photo of the Bari waterfront. The sidebar includes links for Overview, SQM 2019 main website, Timetable, Overall layout, Call for Abstracts, Contribution List, Book of Abstracts, Registration, Fee payment, Participant List, Conference info (with a link to [sqm2019.bna.infn.it](http://sqm2019.bna.infn.it)), and a Conference file section. The registration form shows fields for Personal Data, including Title, First Name, Last Name, Email Address, Affiliation (CERN), Country, Member of the Italian Physical Society (IFIS), and Address.

## EVENTS BY YEAR



FCC-hh physics analysis meeting (Future Circular Collider) on Thursday 29 Nov 2018, 16:00 → 18:00 Europe/Zurich at CERN. The agenda includes:

- 16:00 → 16:10 Introduction: Speakers: Filip Moortgat (CERN), Heather Gray (I.R.I.).
- 16:10 → 17:00 Update on tqq constraints from single top production: Speaker: Lev Dudko (M.V. Lomonosov Moscow State University (R.F.)).
- 17:00 → 17:30 Update on HH-4b: Speakers: Ana Carvalho (Universidade de Lisboa (P.T.)), Ricardo Jose Morais Silva Goncalo (LIP Laboratorio de Instrumentacao e Fisica Experimental de Part.).
- 17:30 → 17:50 Update of HH-4bb4l: Speaker: Elisa Fontanelli (Università e INFN, Bologna (IT)).

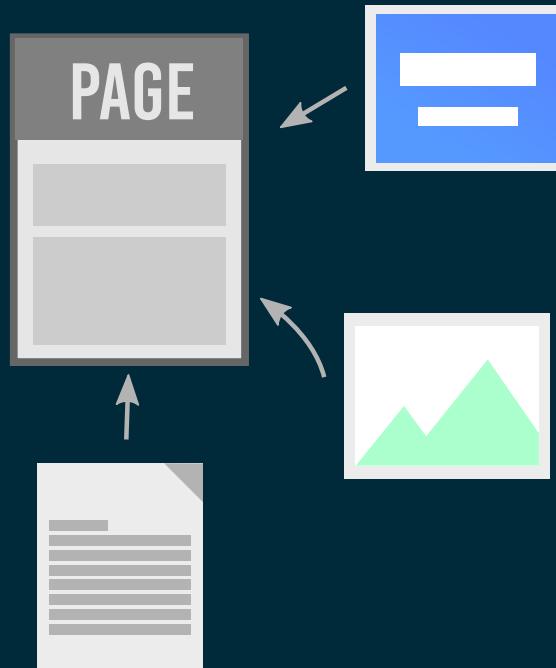
Rucio Development Meeting (RUCIO) on Thursday 18 Feb 2021, 15:00 → 16:00 Europe/Zurich at CERN. The agenda includes:

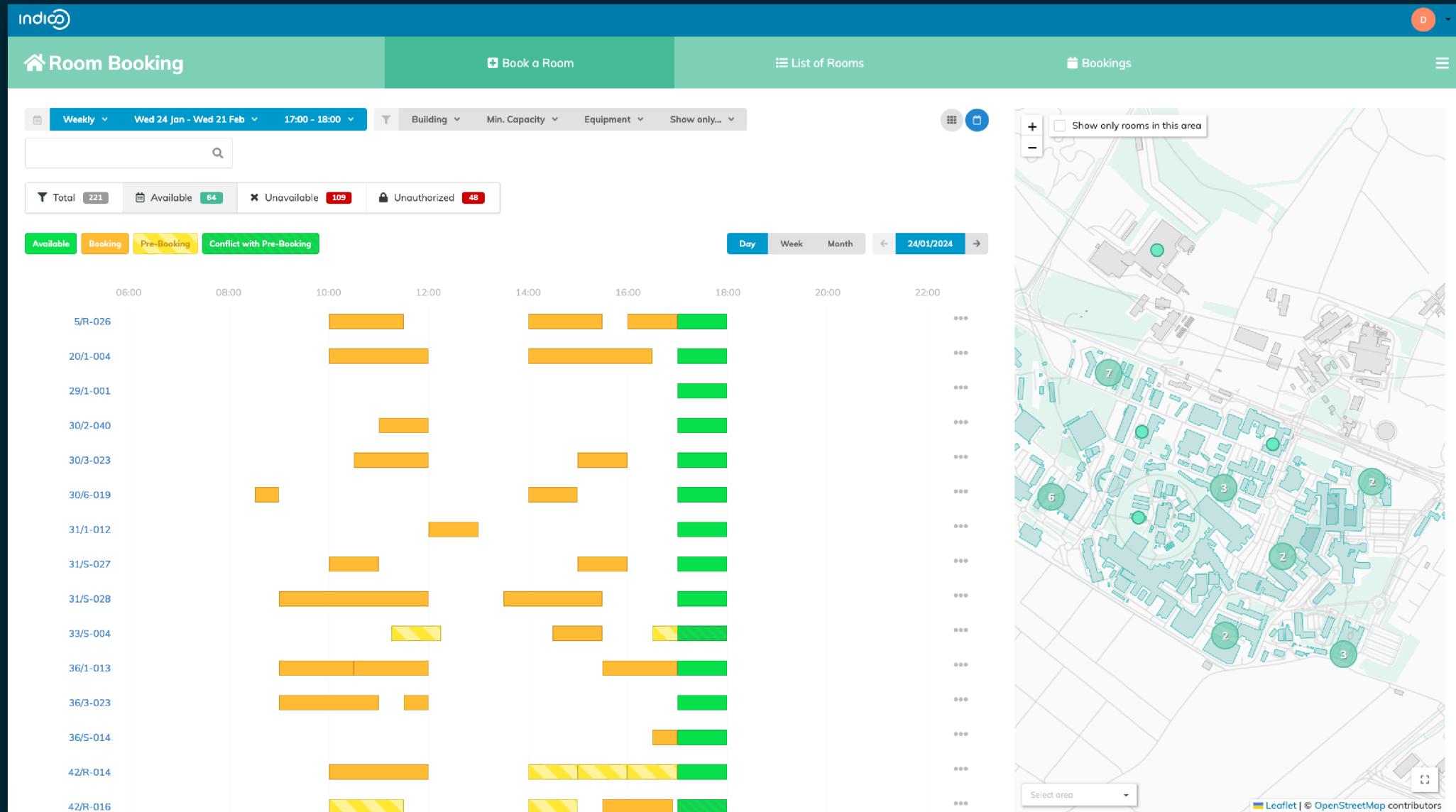
- 15:00 → 15:10 News:
  - Two releases this week
    - # 1.24.3 post1
    - # 1.24.4
  - Release schedule
    - # 1.24.5 Feb-22
    - # 1.23.13 LTS-Feb-22
    - # 1.23.14 LTS-Mar-22
  - Code Freeze from Feb-24
    - # 1.25.0 v1 Feb-25
    - # 1.25.0 Mar-1 ... Mar-5

# CONFERENCES WORKSHOPS



# MEETINGS LECTURES







## Philosophy

- "General purpose" **core**
- Extension through **plugins** ✨
- **Themes** 🎨 (customization)

# Under the Hood

- Python 3 
- PostgreSQL 
- Flask
- Celery
- SQLAlchemy
- React
- Semantic UI React
- *among many others!*



# Extensions

- Video conferencing 
- Payment Systems 
- Automatic conversion to PDF 
- Search 
- Storage 
- URL Shortening 
- Internal Workflows (e.g. recording, visitors)

# Zoom

The screenshot shows a Zoom meeting invitation for "CTE Section Meeting #87".  
- \*\*Title:\*\* CTE Section Meeting #87  
- \*\*Date & Time:\*\* Wednesday 31 Jan 2024, 16:00 → 16:30 Europe/Zurich  
- \*\*Organizer:\*\* Pedro Ferreira (CERN)  
- \*\*Videoconference:\*\* A zoom link is provided with a "Join" button.  
- \*\*Registration:\*\* A message states "You are registered for this event." with a "Check details" button.  
- \*\*Participants:\*\* A list of participants includes Adrian Mönnich, Dominic Hollis, Duarte Galvao, Michel Succar, Pedro Ferreira, Rene Fernandez Sanchez, Ruben Domingo Gaspar Aparicio, and Tomas Roun.

# Electronic Payment

**Payments**

Event-wide payment settings

 **General settings**  
Configure general settings for payments.

 **Configure**

**Payment methods**

 <b>Manual</b> <span>enabled</span>	 <b>Bank Transfer</b> <span>disabled</span>	 <b>PostFinance CERN</b> <span>enabled</span>	 <b>PayPal™</b> <span>disabled</span>
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# Workflows

**Logistics**

You can request additional services for your event. Click one of the service buttons below to send a request or to view/modify an existing request.

The screenshot shows a section titled "Logistics" with a sub-instruction: "You can request additional services for your event. Click one of the service buttons below to send a request or to view/modify an existing request." Below this, there are four service buttons arranged horizontally:

- CERN Visitor Badges** (Status: Accepted)
- Room assistance**
- Videoconference assistance**
- Webcast / Recording** (Status: Accepted)

# Access Registration

Request access to the CERN site  
In case you do not have a valid CERN badge, you can request temporary CERN site access here.

**Request access to the CERN site**  
CERN's Security Policy requires you to provide the following additional data. The contents of this form will not be shared with the event organizers and will only be revealed upon request from CERN's Site Surveillance service.

Once you have provided this data, you will be able to get a ticket which grants you access to the CERN site during this period: 14 September 2023 (10:00 - 12:00)

Birth date \*  
 DDMMYYYY 

Country of birth \*  
 Select a country

Place of birth \*

 Vehicle Registration  
 I'm coming by car



# Recording of Events

**Request details**

These are the details provided by the event manager.

Created by

Created at 12 May 2022, 08:38

Services  Webcast  Recording

Please choose whether you want a webcast, recording or both.

All contributions  
Uncheck this if you want to select only certain contributions.

Webcast Audience No restriction - everyone can watch the public webcast

Select the audience to which the webcast will be restricted

Language English

Select the main spoken language during the event

Comments

If you have any additional comments or instructions, please write them down here.

Modify request Withdraw request Back



CERN Accelerating Science

Logged in as: Pedro Ferreira (pferreira) Logout Directory

CERN Webcast Website

Home Webcast Service Docs CDS Archive

**10 years of Higgs boson measurements at ATLAS and CMS**  
by Kerstin Tackmann

This event is also available in French

Main view Camera Slides

Discovery of a new particle.

Signal steadily increasing with size of dataset: "Textbook discovery". Why were looking for a Higgs boson, but what is it then we found?

**Event details**

Date Thursday 01 Feb 2024, 17:03 → 17:03 (Europe/Zurich)

Location 500/L-001

Speaker(s) Kerstin Tackmann

**Abstract**

On 4 July 2012, a packed CERN Auditorium, joined by physicists in Melbourne on the eve of ICHEP2012, along with a global webcast audience, learned that the long-awaited Brout-Englert-Higgs mechanism had

Indico

# Hot desking

The screenshot shows the indigo@Burotel interface for managing hot desking. The top navigation bar includes links for 'Burotel', 'Book a Desk', 'List of Spaces', and 'Bookings'. Below the navigation is a search bar and filters for 'Daily' (selected), 'Thu 1 Feb - Thu 8 Feb', 'Location', 'Building', 'Equipment', and 'Experiment'. A status summary shows 'Total 591', 'Available 86', 'Unavailable 53', and 'Unauthorized 454'. The main area displays four sections of desks:

- 15**  
15/R-014  
15/R-014 - Desk 4 LHCb  
LHCb  
✓
- 15/R-016**  
15/R-016 - Desk 2 LHCb  
LHCb  
✓ 15/R-016 - Desk 4 LHCb  
LHCb  
✓
- 15/R-022**  
15/R-022 - Desk 2 LHCb  
LHCb  
✓
- 15/R-024**  
15/R-024 - Desk 2 LHCb  
LHCb  
✓

To the right is a map of a campus or building complex, color-coded by room availability. Red dots indicate unavailable rooms, while green and blue dots indicate available rooms. Room numbers like 15, 15/R-014, 15/R-016, 15/R-022, 15/R-024, 653, 20, 17, 42, and v2 are labeled on the map. A legend at the bottom left says 'Select area' with a dropdown arrow, and the bottom right credits 'Leaflet | © OpenStreetMap contributors'.

# Themes / Customization

The screenshot shows the Indico web interface for the International Linear Collider (ILC) Agenda. The top navigation bar includes the ILC logo, the text "International Linear Collider :: Agenda", and dropdown menus for "Europe/Zurich", "English (United Kingdom)", and "Login". Below the header is a secondary navigation bar with links for "Home" and "Create event". A search bar with placeholder text "Enter your search term" and a magnifying glass icon is positioned above the main content area.

The main content area is titled "Main categories" and displays a list of categories with their respective event counts:

Category	Events
ILC International Development Team	502 events
Machine Design	2,157 events
Physics and Detectors	4,154 events
Conference and Workshops	119 events
Institutions	1,172 events
Linear Collider Collaboration	177 events
Test Area	101 events

To the right of the main content area is a sidebar titled "News" which lists recent news items:

- Indico 3.3 (Posted 21 Dec 2023)
- Indico 3.2 (Posted 22 Jun 2022)
- Indico 3.1 (Posted 6 Jan 2022)

At the bottom of the page, there is a footer with the Indico logo and the text "Powered by Indico v3.3-pre". Other footer links include "Help | Contact".

# Themes / Customization

The screenshot shows a meeting agenda for the FCC-hh physics analysis meeting. The top bar includes the Future Circular Collider logo, the meeting title "FCC-hh physics analysis meeting", the date and time "Thursday 29 Nov 2018, 16:00 → 18:00 Europe/Zurich", and the location "CERN". The agenda lists four sessions:

- 16:00 → 16:10 Introduction**  
Speakers: Filip Moortgat (CERN), Heather Gray (LBNL)  
[FCC\\_intro\\_Nov29.pdf](#)
- 16:10 → 17:00 Update on tqq constraints from single top production**  
Speaker: Lev Dudko (M.V. Lomonosov Moscow State University (RU))  
[2018-11-29-FCC\\_FC...](#)
- 17:00 → 17:30 Update on HH->4b**  
Speakers: Ana Carvalho (Universidade de Lisboa (PT)), Ricardo Jose Morais Silva Goncalo (LIP Laboratorio de Instrumentacao e Fisica Experimental de Part)  
[FCCphysics\\_hhbbb...](#)
- 17:30 → 17:50 Update of HH->bb4l**  
Speaker: Elisa Fontanesi (Universita e INFN, Bologna (IT))  
[FCC-hh meeting \(29...](#)

# Themes / Customization



The screenshot shows a web browser displaying the Higgs 2020 conference website. The header includes a navigation bar with icons for back, forward, search, and refresh, along with session status (Public), location (Europe/Rome), and user (P. Ferreira). The main banner features a large gold 'H' and the text 'HIGGS 2020' over a background of a particle collision event. The banner also displays 'Online conference' and the dates 'October 26-30'. Below the banner, the title 'Higgs 2020' and date '26-30 October 2020' are shown, along with a note about the event being online due to Covid-19. A search bar is at the top right. On the left, a sidebar menu lists 'Overview' (selected) and other sections: Call for Abstracts, Timetable, Registration, Session conveners, Participant List, Contribution List, Special event, Bulletins, Chairs and speakers Infos, Zoom connection links, Breakout Rooms, and Committees. The main content area contains a message about the postponement to 2021, social media links (@HiggsConference), and detailed descriptions of the conference's scientific focus and virtual connection details.

Online conference

HIGGS 2020

October 26-30

Higgs 2020  
26-30 October 2020

Europe/Rome timezone  
There is a [live webcast](#) for this event.

Search...

Overview

Call for Abstracts

Timetable

Registration

Session conveners

Participant List

Contribution List

Special event

Bulletins

Chairs and speakers Infos

Zoom connection links

Breakout Rooms

Committees

Due to the ongoing Covid-19 pandemic the in-person Higgs conference at Stony Brook/BNL is postponed to 2021. Nevertheless, Higgs 2020 will proceed online this year.

Follow us on Twitter: @HiggsConference

**Higgs 2020** (former Higgs Couplings) is this year's installment of an annual conference devoted to new experimental and theoretical results on the Higgs boson. The 2020 conference will present the latest results from the LHC on the Higgs boson mass, spin/parity, and couplings and will present new theoretical work devoted to the measurement of Higgs parameters and possibilities for exotic Higgs decays. The conference will provide an opportunity for critical discussion of the current strategies for studying the Higgs boson at the LHC and the next steps beyond the LHC. Higgs 2020 will include several sessions of parallel contributions on current research topics.

**Zoom connection for Plenary Sessions**

<https://cern.zoom.us/j/97061949349>

**Zoom connections for Parallel Sessions**

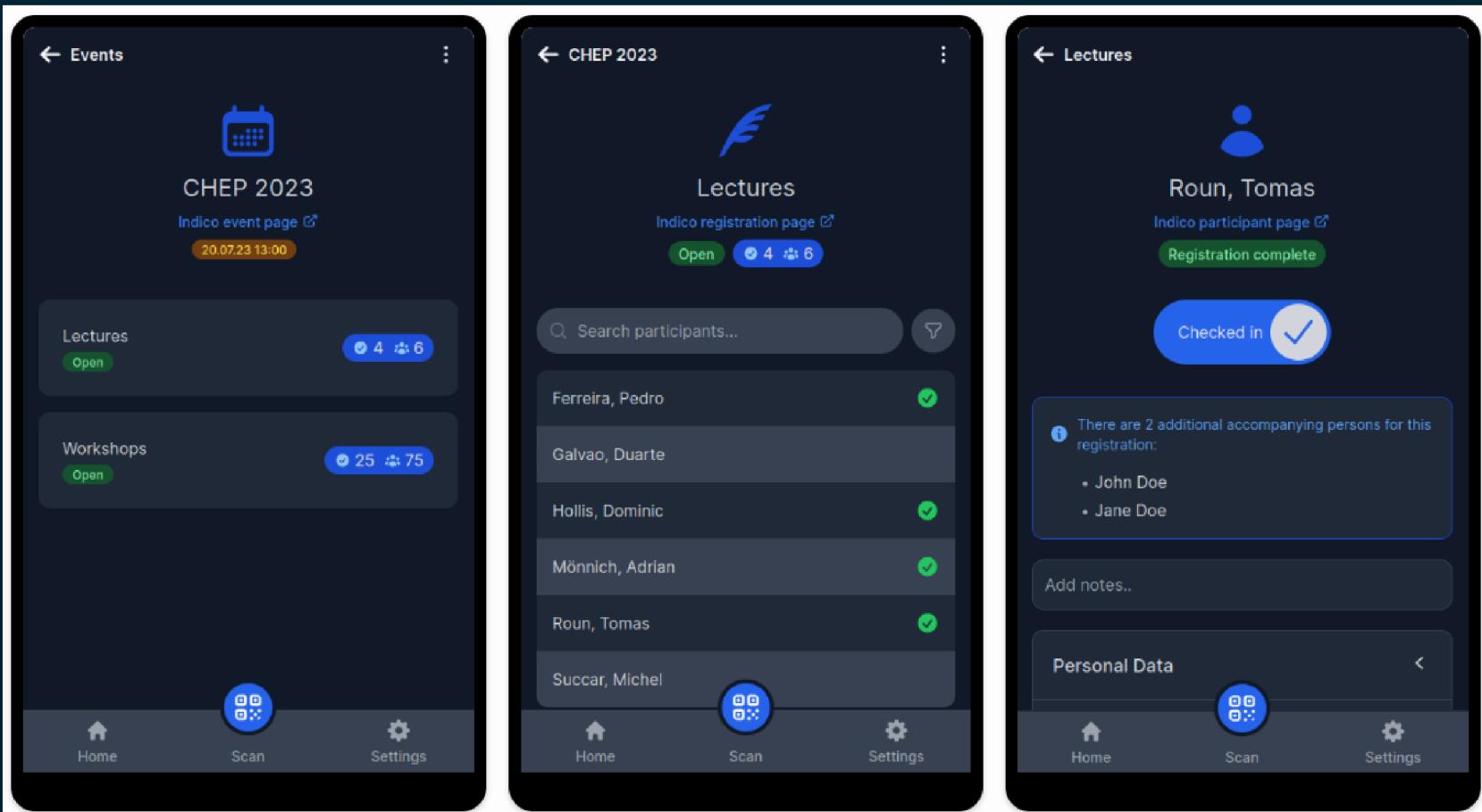
**Session A (Precision):** <https://cern.zoom.us/j/99197698239>

**Session B (Yukawa):** <https://cern.zoom.us/j/94061343557>

**Session C (HH):** <https://cern.zoom.us/j/94128951251>

**Session D (ETE):** <https://cern.zoom.us/j/9402862506>

# Check-in App (PWA)



# How to get Indico?

-  **Option 1: run it yourself**
  - **Pros:** full control, data sovereignty/privacy, cheap (if you have internal IT know-how)
  - **Cons:** may become expensive if there is no know-how
-  **Option 2: get someone to run it on your own infrastructure**
  - **Pros:** full control, data sovereignty/privacy, cheap (if you have your own IT infrastructure)
  - **Cons:** you still need to have your own IT infrastructure
-  **Option 3: get someone to host/run it for you (cloud)**
  - **Pros:** most likely cheaper than running your own IT
  - **Cons:** data sovereignty/privacy

## Some known providers

- Mythic Beasts
- S2Innovation
- unconventional.dev (CERN spin-off)

# Governance

- Clear **Governance Policy** with **roles and bodies**
- Regular workshops and community events
- **Consultative board:** CERN, UN and MPP
- "**Making Indico better for us and everyone else**" e.g. accessibility work by UN

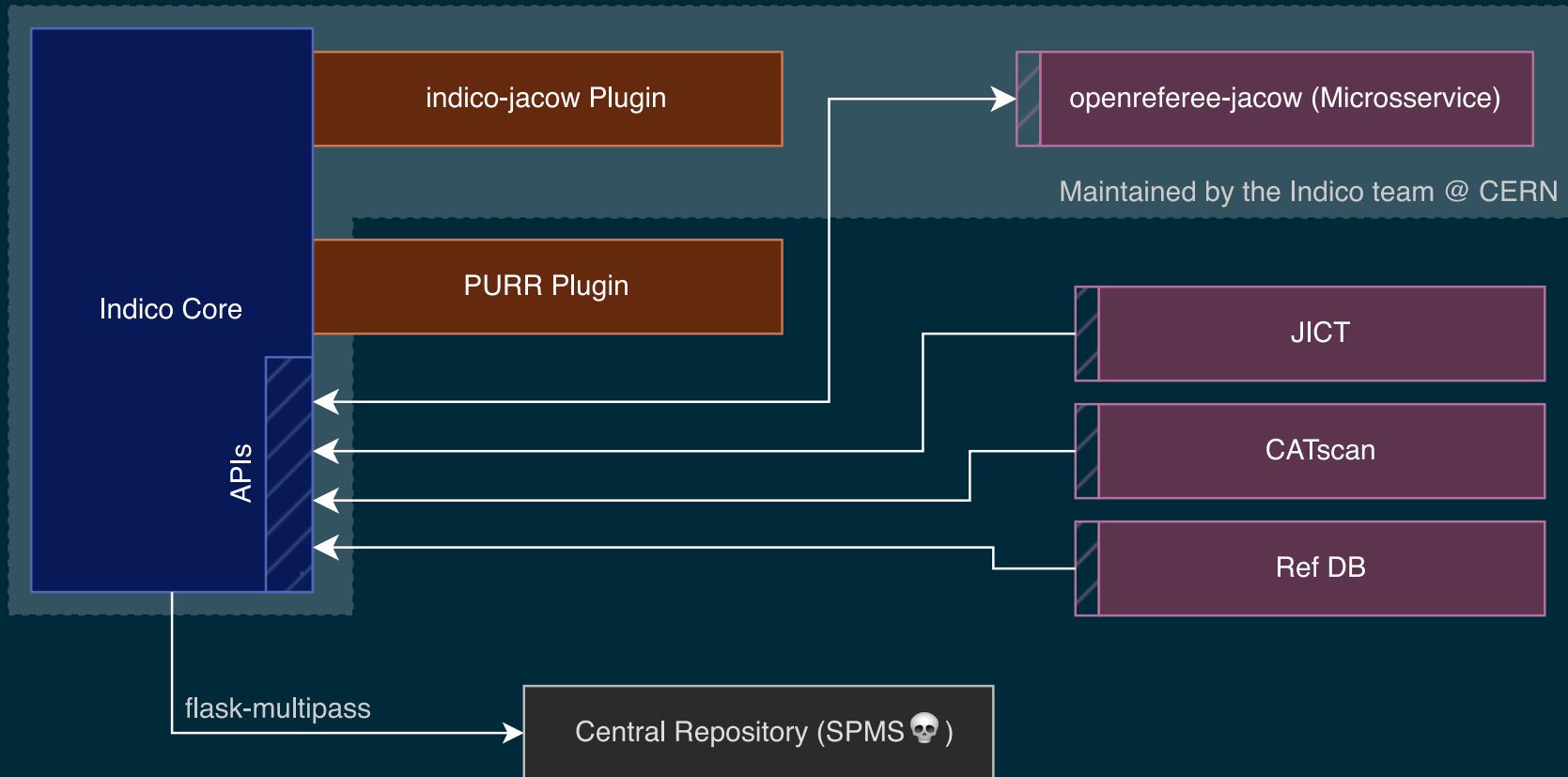
	Contribution	Influence
Indico Community	Voluntary	Ideas and suggestions
Participating Organizations	Significant	Presence in community meetings, a say in community resource allocation
Consultative Board	Particularly relevant	Approve roadmap and steer general Project development



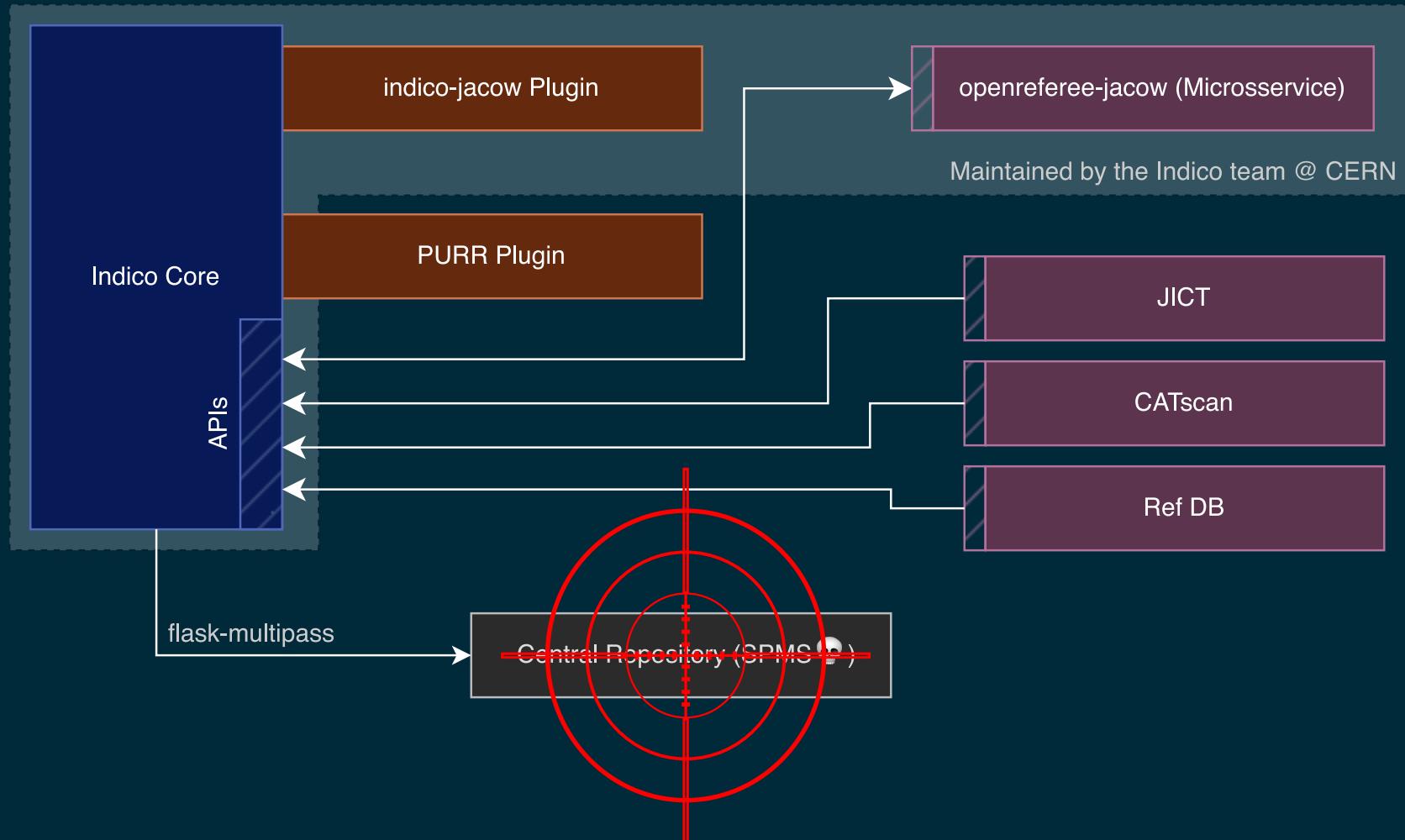
<https://github.com/indico/governance>

# What is JACoW?

# What is JACoW? (our POV)



# What is JACoW? (our POV)



# Past year's progress

- We went to IPAC24

Duarte Galvão, Michel Succar - IT-CA-CTE (CERN)



# Past year's progress

- We went to IPAC24
  - and we took notes!
- TODO

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 editable's state rather than the last revision's state to know 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 the files.	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 dashboard, with information coming from the provider's API. Additionally, display in the conferences' registration form.

# The Future of Indico

- Greater Accessibility (a11y)
- UI Improvements and legacy code removal
  - React-based timetable
- User Interfaces
  - Improvements in material editor (e.g. better drag and drop)
  - Responsive interfaces that work OK on mobile
- More user-centric home page
- Version 2 of the REST API: granular scopes, endpoint versioning, OpenAPI support;
- More info in our roadmap (<https://getindico.io/roadmap/>)

# getindico.io

 @getindico@fosstodon.org

 @getindico

[m] @#indico:matrix.org / indico@libera.chat



Indigo