The new Academic Training website

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Presentation for the 28th February 2022 Terra Incognita event

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Introduction

We are designing and building an attractive website to promote CERN's Academic Training lectures.

Analysis

The project is about:

- designing and building an attractive website to promote CERN's Academic Training, and easily maintained in future
  - lectures are open to all members of CERN personnel (in particular staff members and fellows, associates, students, users, project associates and apprentices) free of charge
  - lectures are recorded and published on the web along with the visual support material

The complete catalogue of Academic Training and Summer Student Programme lectures are **archived since 1968**. Not all of them have videos.

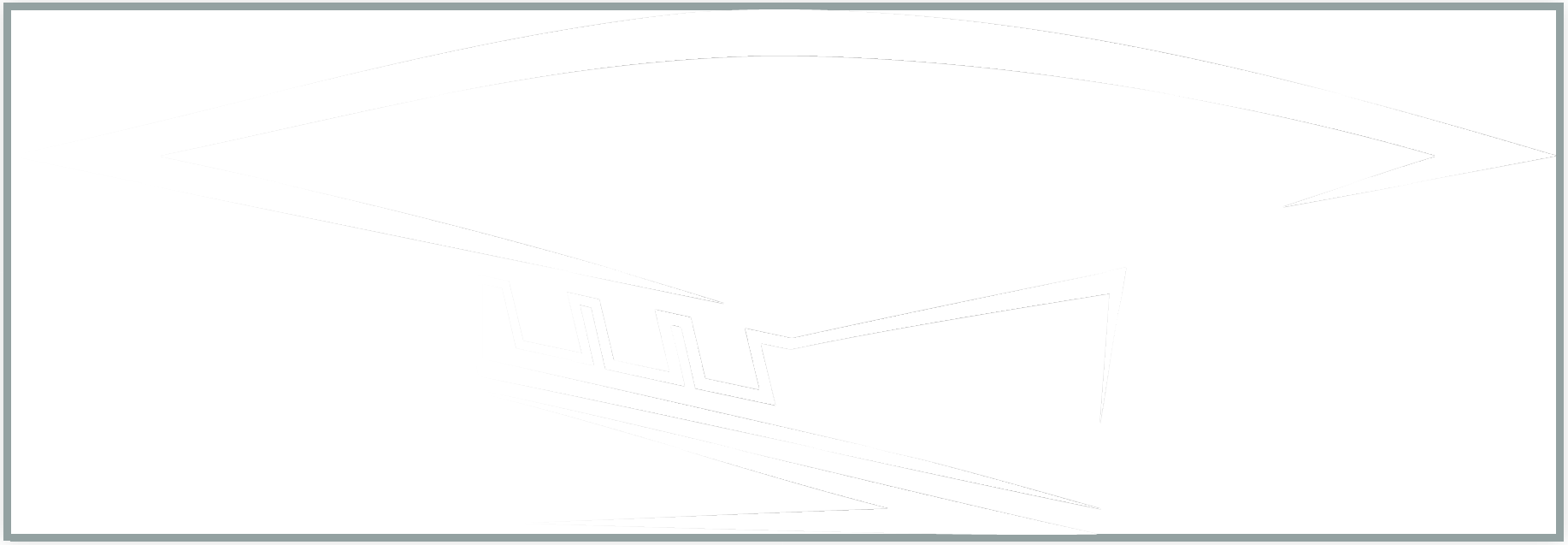
Done and To-Do

1. Evaluated what other research and academic institutes do to promote their educational material see here sites we checked
2. Made Mockups and discussed them with the Academic Training Committee (ATC) members.
3. Evaluated alternative technology proposals.
4. Definitely need the possibility to email periodic notifications on the programme activities
5. The ATC rejected any possibility to enter “Comments” on past lectures.
6. Very much needed the possibility of submission of ideas for future lectures
7. … and the support on user queries related to the website
8. An academictraining-admin.docs.cern.ch documentation for the site maintainer is in the making. Full project description here

Design

Mockups and UI Design choices

ATC Logo



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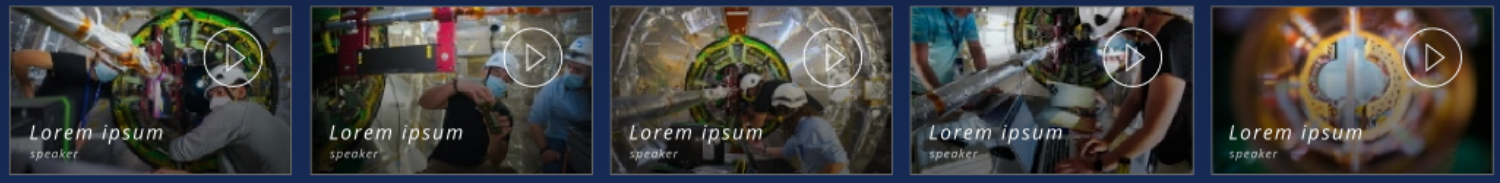

SUBMIT A SUGGESTION FOR FUTURE TOPICS

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SEARCH RESULTS:

Dark Matter searches

(speaker/s)

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Statistics for High Energy Physics

(speaker/s)

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Cosmology and Particle Physics (4/5)

(speaker/s)

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Particle Dark Matter (1/4)

(speaker/s)

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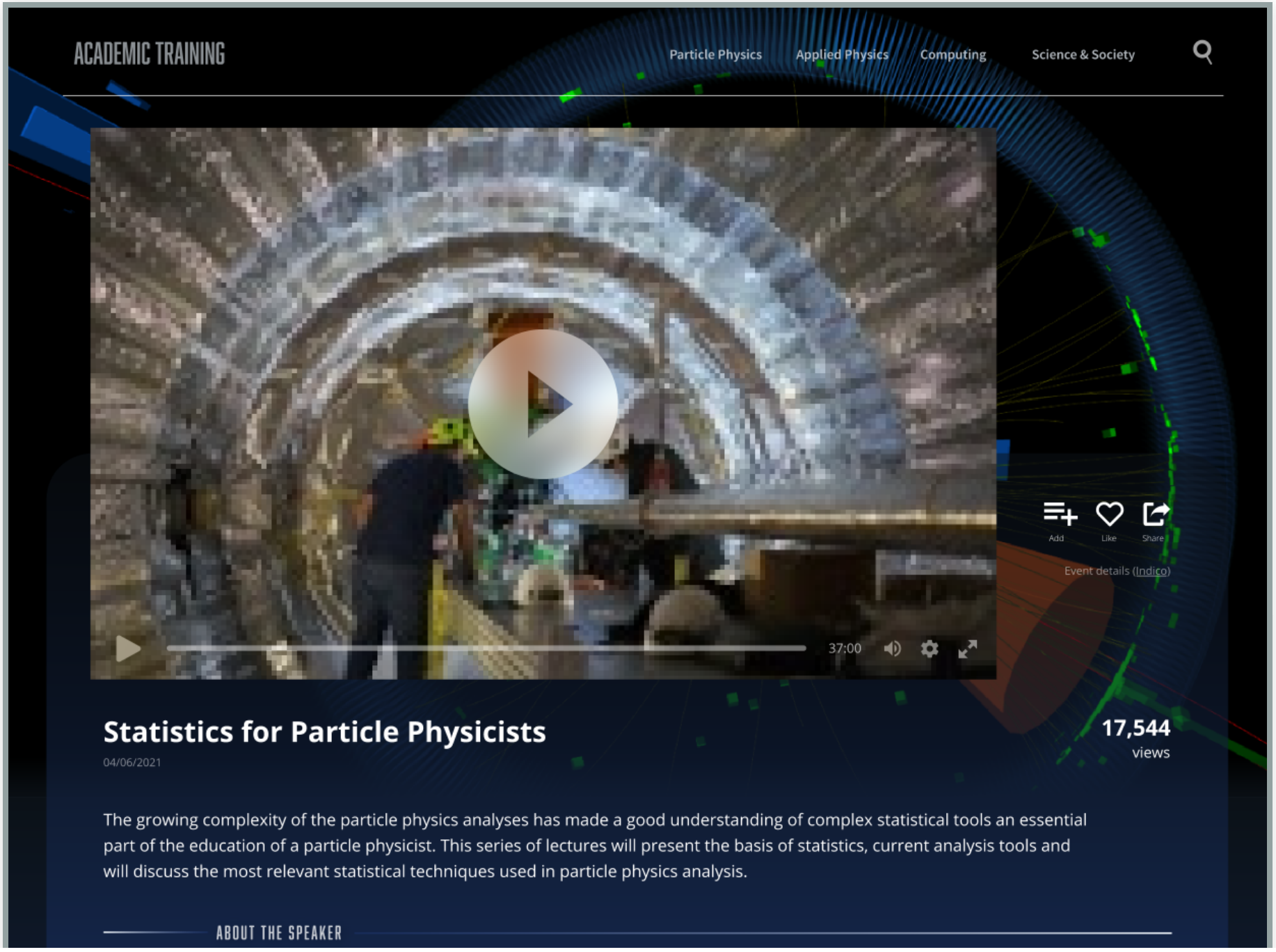
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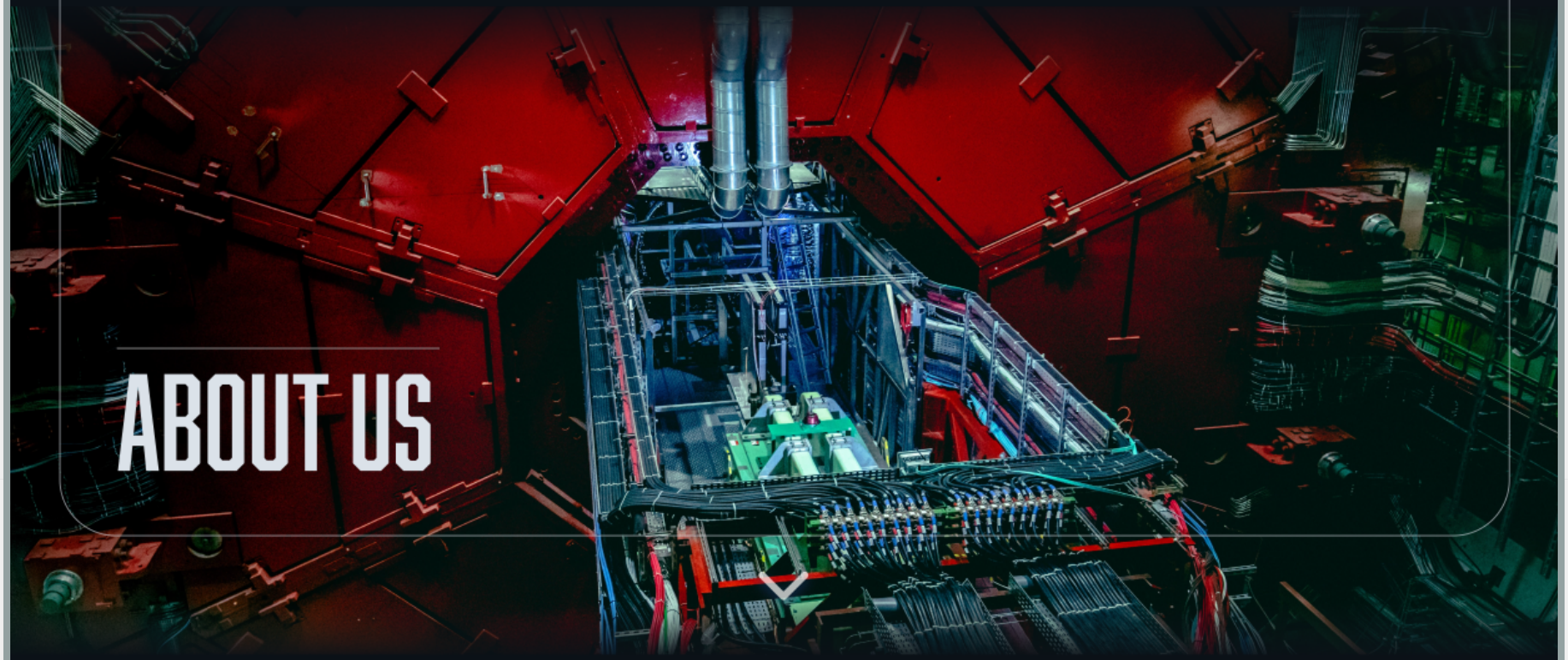
The growing complexity of the particle physics analyses has made a good understanding of complex statistical tools an essential part of the education of a particle physicist. This series of lectures will present the basis of statistics, current analysis tools and will discuss the most relevant statistical techniques used in particle physics analysis.
ABOUT THE SPEAKER

CERN Academic Training lectures are open to all members of CERN personnel (in particular staff members and fellows, associates, students, users, project associates and apprentices) free of charge.

Each lecture is recorded and published on the web along with the visual support material. The complete catalogue of Academic Training and Summer Student Programme lectures archived since 1999.



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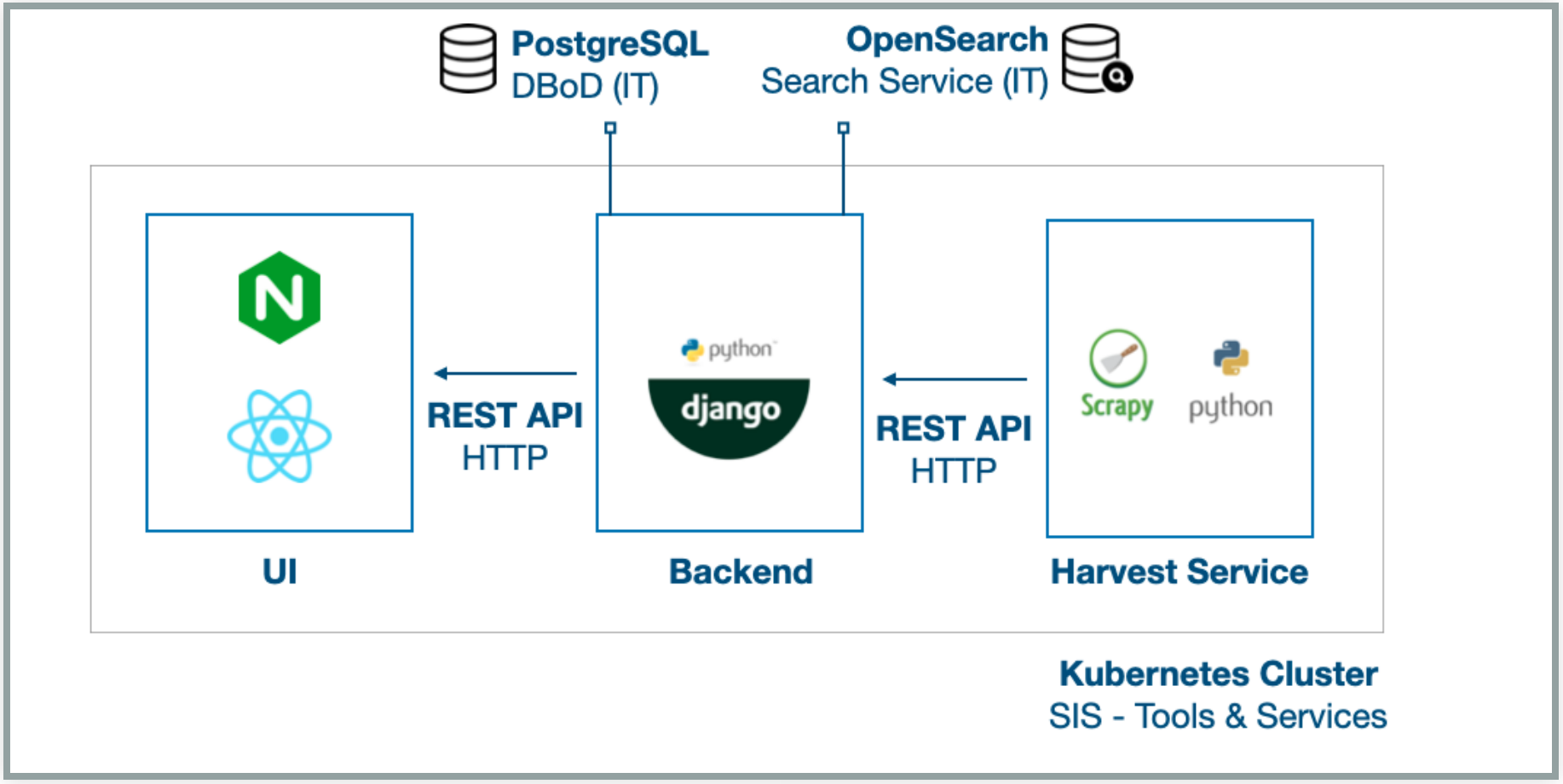
ACADEMIC TRAINING COMMITTEE

Architecture



Backend

- django framework with the powerful django rest framework.
- PostgreSQL for database
- OpenSearch for searching lectures

Frontend

- ReactJS SPA (Single Page Application).

CDS harvesting

- We are using the OAI-PMH mechanism to harvest records from CDS.
- We reused the already existing harvesting from INSPIRE which contains already the data transformation from XML to JSON format.
- When the harvest is successful, we're using the Backend's REST API to create new entries.
- We are running the harvest weekly, to get the latest records from CDS.

Implementation

Proof of Concept (Demo)

https://academictraining.cern.ch/

Project (near) Future

1. The implementation completion and admin (.docs) guide will be done by Franciska this spring.
2. The long-term infrastructure maintenance and evolution, the CDS harvesting supervision will be ensured by Harris.
3. ATC-related content updates will be done by Salome.
    - Points 2 & 3 agreed between Maria and the RCS directorate, project co-funder.

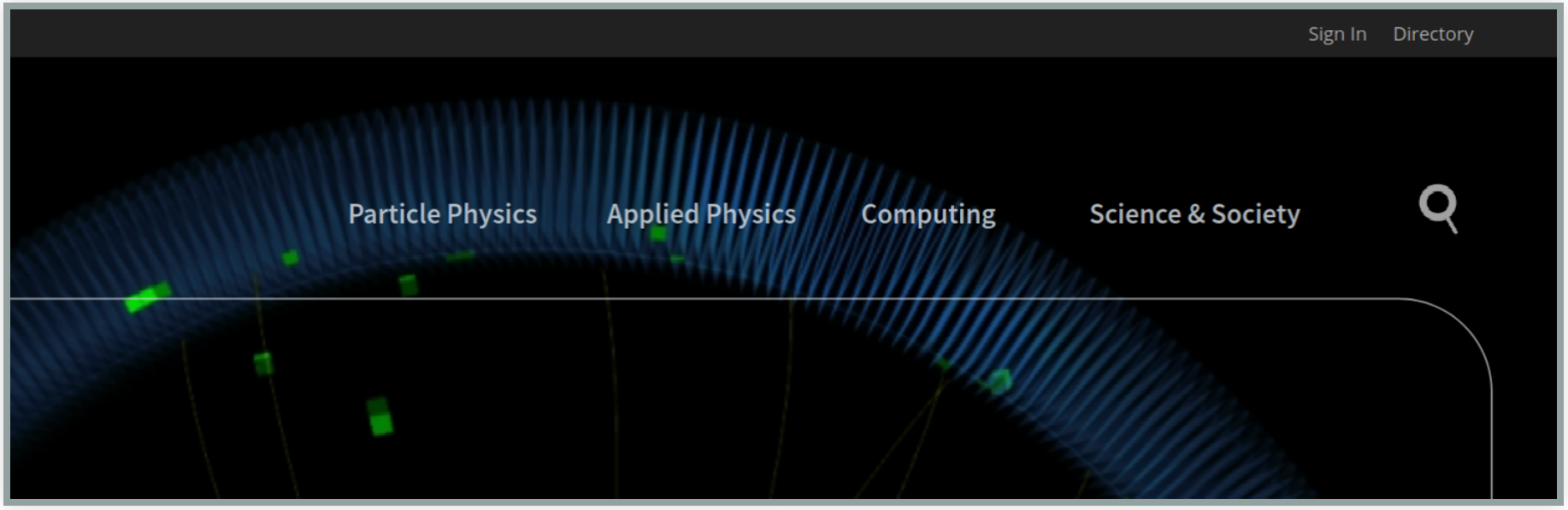
ATC = Academic Training Committee

Project (a.s.a.p.) Future

The Web site views and *especially* searches depend on:

- the quality of the recordings
- the creation of subtitles for the whole backlog of those lectures (after 1989), which contain video.
- intelligent searches. We shall need a new dedicated project to harvest searchable strings from the subtitles and the 1968-1989 lectures, which don't contain video.

More on intelligent searches



We'd like to fill these categories, create sub-categories and have the metadata to return good results. Right now we can't...

The measure of success

- The ATC budget is very small.
- The lecturers do a lot of preparatory work, for little money. CERN lecturers get no money.
- The reward we can offer is *promotion of their work* via the videos:
  - in CDS,
  - in the CERN Lectures' YouTube channel for some of them and,
  - most importantly: **via this dedicated Web site.**

Please help us ensure the data quality in there!

Other partners

- Similar CERN lectures are available via other Indico categories, e.g. Colloquia, Seminars, various students' programmes…
  A possible expansion of our project is desired from the Research Directorate and could be envigaged, after usability testing and tuning concludes.
- Include CERN lectures in SWITCH Tube

Thank you! – Questions?