



Final Event

PANOS
CHARITOS
SEPTEMBER 21 2021

EASITrain Final Event
21 & 22 September
2021
Stuttgart
Germany

ONLINE

<http://cern.ch/EASITrainFinalEvent>



The European Advanced Superconductivity Innovation and Training (EASITrain) project receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 764879. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.



Public Events



EASISchool 1

- Public event: “Forschung? Was geht mich das an!” with the participation of 2 ESRs (Alice Moros and Mattia Ortino). Co-organized with Vienna’s Natural History Museum and OAW.
- Contribution to the BE OPEN science and society festival (travelling FCC/CERN exhibition “The Code of the Universe” - co-produced with Editions Lammerhuber).
- The 2 events coincided with the Austrian Presidency of the EU (overlap with the ICRI 2018 conference in nearby venue).

EASISchool 1

- 700 persons were personally invited to the two events (exhibition & public event)
- 270 guest (full-house) attended in person the public event.
- 3000 persons reached through a live Facebook Webcast of the event.
- Post-event networking reception with 120 guests including media representatives, industrial leaders and politicians.
- Publicly announced in Vienna via posters, event newspapers and via different social media channels. Press announcement by the Austrian Press Agency (https://www.ots.at/presseaussendung/OTS_20180906_OT50087/der-code-des-universums-eroeffnung-derfotoausstellung-am-sa-den-08-september-2018-um-1100-uhr-bild).
- Series of interviews organized before and after the event with Michael Benedikt (FCC study leader), Rolf Heuer (CERN's former DG) and Georg Bednorz (Nobel-laureate).

EASISchool 1

The exhibition "Code of the Universe" opened in Vienna, Austria on 8 September 2018 (11:00) as part of the BE OPEN Science & Society Festival.

First stop of an international tour that included public spaces in many European cities.



Duration of exhibition: 7 Weeks

Visitors: ≈

- 250pp/day (spending more than 5')
- 30pp/day spending > 30')

School visits (during the Be OPEN science festival + part of visits to Vienna's Natural History Museum.

EASISchool 1

A dedicated **Media Training** was organised by **Terra Mater Factual studios** a subsidiary of **Red Bull Media House**.

Goals:

Bridge the gap between science and the public.

13 participants. The workshop was conducted by **Markus Mooslechner** (WP7 deputy leader an award-winning science filmmaker) & **Andreas Rottenschlager** (Deputy Editor-in-Chief of the internationally renowned RedBulletin Magazine).

Trainees were able to experiment directly with what they heard, thus developing a deeper understanding of the relationship between language and message.



EASISchool 2

Prepare outreach & communication material.

Co-organize a public event to mark the opening of the School. In his talk “A Future Circular Collider at CERN”, A. Blondel described the main challenges of designing a new generation of particle colliders at CERN.

Opening of the travelling exhibition “Code of the Universe” in Campus MINATEC in Grenoble.

Public conference “La cryogénie au service des découvertes scientifiques” (Cryogenics for scientific discoveries) concluded this EASITrain animation at the “Grenoble Fête de la Science 2019”.



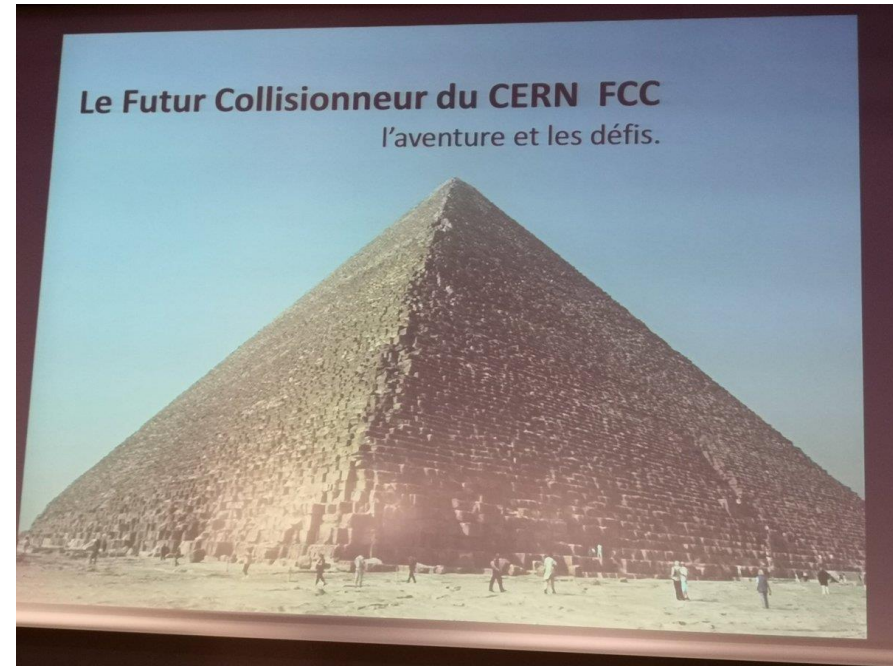
EASISchool 2

Public Event: “A Future Circular Collider at CERN”.

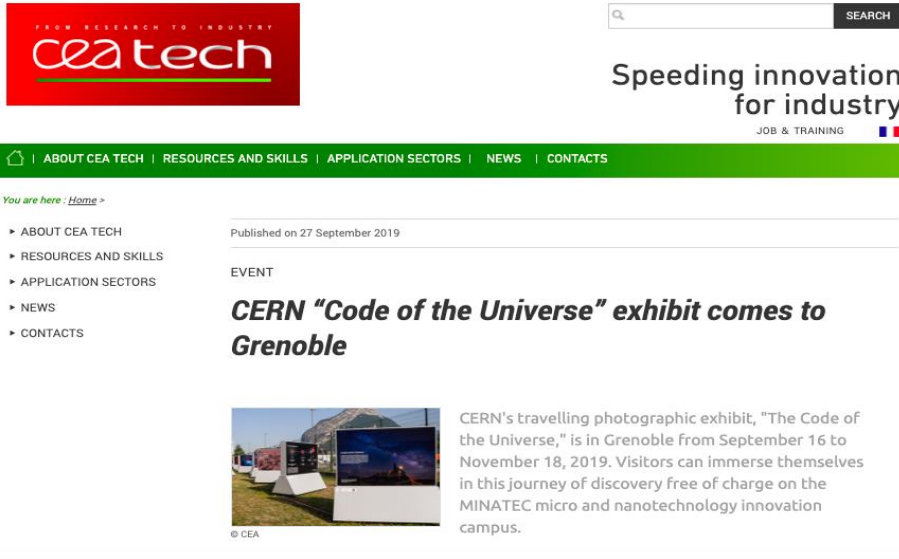
Co-organized with MINATEC at their campus in Grenoble.

Audience size: >250 participants (full-house) event

Audience type: scientists & engineers from different fields (outside HEP), university students



EASISchool 2



Public exhibition opened in Campus Minatec in Grenoble (France).

Duration: 2 months (16/09 - 18/11 - 2019)

Visitors: 100pp/day (avg. stay > 5')
Included weekly school visits and a dedicated guided tour by ESR Jakub Tkaczuk.

Exhibition also included in French "Fête de la Science 2019" on the 10th and 12th of October 2019.

Important Synergies with local authorities and science/public events.





Engaging children in the physics of low temperatures during EASISchool 2



Group photo of ESRs who participated in EASISchool 2

EASISchool 3

Challenging as it took place during the COVID19 pandemic (see presentation by WP6).

Hybrid format with in-person and remote presentations.

Research background

Thin films for SRF R&D program at CERN

From bulk Nb to Nb/Cu: well established since LEP era

- Cu is a cheaper bulk material than Nb
- Cu has higher thermal conductivity at low temperatures than Nb
- Q-slope not fully understood

A15 compounds on Cu:

- Higher T_c = less cryopower: 9.3 K (Nb) vs 18.3 K (Nb₃Sn) or 17.5 K (V₃Si)
- Lower surface resistance = less dissipated power: 45 nW (Nb) vs 0.4 nW (Nb₃Sn) @ 4.2 K and 500 MHz

→ Synthesize A15 crystalline phase

→ Achieve theoretical T_c on Cu substrate

→ Manage material stress and treatment affecting microstructural features hence RF performance

→ Role of intermediate layer (Nb, Ta, Ag...)

Graph showing Total Cryopower in MW vs R_{surf} in MV/m. The graph compares Nb/Cu (400 MHz, 4.5 K) performance, LHC performance, ECR on flat sample, and Bulk Nb (800 MHz, 2 K). A potential Nb₃Sn (800 MHz, 4.5 K, 20 nW) is also indicated. Source: S. Aull, FCC 2019.

08/10/2020 EASISchool 3 – Genoa

Dorothea Fomesu

5

+12 EB S GR JC

People

- AP Alejandro Plaza
- AB Antonio Bianchi (Ospite)
- BS Beatrice Siri
- CG Conference Room Genova
- CP Cristian Pira (Ospite)
- DS Dorota Smakulska (Gość)
- DF **Dorothea Fomesu**
- EB Emilio Bellingeri
Organizer
- GR Guillaume Jonathan Rosaz
- IP Isabel Gonzalez Diaz Palacio
- JC Jean-François CROTEAU (ME...)
- LC Lorena Vega Cid
- MR Marco Raimondo
- MK MASOOD RAUF KHAN (mkh...)
- M maxime.podeur
- PG Pablo Vidal Garcia

EASISchool 3

Prepare outreach & communication material.

Public event in a hybrid format (limited audience & social media webcasted)

Travelling exhibition “Code of the Universe” - profit from the fact that it is an outdoor exhibition.

Integrated with “Festival della Scienza” (22/10 - 01/11) in Genoa.

Last two days took place a [Researchers organised Workshop](#) (including guest speakers from the FCC study & ITER).

EASISchool 3
Superconductivity and its applications
Dates: 28/9/2020-9/10/2020
Genoa, Italy

Register: <https://easischool3.web.cern.ch>

Organizers: CERN, UNIV. DEGLI STUDI DI GENOVA, ASG, INFN, EASISchool, ESAS, European Union

The project is supported by the European Union Horizon 2020 research and innovation programme under the Marie Skłodé Curie grant agreement.

cmrnet/fotopafia.com

EASISchool 3

“Code of the Universe” exhibition installed in Piazza De Ferrari in Genoa.

Duration: 6 weeks: 24/09 - 15/11/2020
[before the new restrictions & 3rd wave of COVID19]

Visitors: \approx 250 visitors/day (spending more than 5'). Profiting from the centrality of the location & warm autumn weather.

Included a number of schools visits as part of an itinerary created for the Festival della Scienza.



EASISchool 3

- Opening of the “Code of the Universe” exhibition in Genoa followed previous opening in Trieste during the European Science Open Forum (ESOF 2020)

Code of the Universe – From CERN to Piazza Unità d'Italia



Agenzia Comunica > Events > "The Code Of The Universe", The Exhibition In Genoa Until November 1st

“THE CODE OF THE UNIVERSE”, THE EXHIBITION IN GENOA UNTIL NOVEMBER 1ST



- Generate a media buzz. The exhibition was covered by a number of national/local media:
Press Release by Consiglio Nazionale delle Reserche:

- [CNR-ITALY](#)
- [Voce Di Genova](#)
- [Mente Locali](#)

EASISchool 3

Public event: “Genoa for superconductivity, superconductivity for us”

Venue: Palazzo Ducale (Sala di Conversazioni e Letture Scientifiche)

Hybrid format: Webcasted with a limited audience in the venue. >2000 viewers online (267 on YouTube, 512 on FCC FB account and the rest from Twitter, LinkedIn and reshaped in other channels.

Special Guest: Guido Tonelli (University di Pisa, former spokesperson of CMS experiment). Coinciding with the publication of his latest book “Genesis”.

Recording available:



Support to Student Workshop on Superconductivity & Applications

Venue: CNR-Spin facility in Genoa.

Key themes:

1. SRF (thin films, bulk, manufacturing, characterization, modelling)
2. Wires and magnets (Nb₃Sn, HTS, Thallium-based, Tapes/wires, magnets)
3. Cryogenics (cryogenic refrigeration, cryogenics, heat transfer, thermodynamics, fluid dynamics)

Student workshop on
Superconductivity
and applications

OCTOBER
8-9 2020

CNR-SPIN
GENOA
ITALY

CERN

EASITrain

SPIN

UNIVERSITÀ DEGLI STUDI
DI GENOVA

Submit your
abstract now at:
<https://indico.cern.ch/event/933609/>

Guest speakers
to be announced

Open-Access proceedings will be published at:
<https://zenodo.org/communities/easitrain>

Websites

[EASITrain Public Website \(2018\)](#)

- Developed in HTML by former FCC/EASITrain web manager.
- Used during the recruitment phase of the project & to communicate it to external stakeholders.
- Geographical Distribution & Thematic Distribution of the network.



[EASITrainers \(2020\)](#)

- Developed in Drupal 8 in collaboration with external expert.
- Featuring the updated profiles of the EASITrainers including the key skills obtained during EASITrain & achievements.
- Providing a tool for networking & job hunting



Participating in Dedicated Workshops

JF Croteau. Panelist in the FCC special session during EuroScience Open Forum (ESOF) 2018, Toulouse France, July 2018. Well-attended session of ESOF > 60 participants + participation in the Poster Session

& EASITrain participation in the ESOF2018 Poster Session.



Linn Kretzschmar -Leveraging the economic potential of FCC's technologies. (Collaboration with WP5)

“Economics of Science Workshop”, Organized during FCC Week 2019 in partnership with the London School of Economics Alumni Association.

Well attended: 80 participants + 15 speakers from academia, Big Science organizations (CERN, ESA, SKA, ESS) and funding agencies (EC, STFC)



Scientific publications



- 1) 36 Open Access scientific publications in ZENODO.
- 1) “The Economics of Big Science” published Springer/Nature (2020). OA: <https://www.springer.com/gp/book/9783030523909>. Contribution by L. Kretzschmar (WU Vienna University of Economics and Business)
- 1) A Focus On FCC-ee accelerator technologies collection of essays to be published after the FCC Week 2021 in EPJ Techniques & Instrumentation: (<https://epjtechniquesandinstrumentation.springeropen.com/>) .
- 1) IOP book “Debating Big Science in the 21st century” is on track. Contribution from WP5 P. Keinz (WU Vienna University of Economics & Business)



EASITrain bulletin

Bimonthly publication with news and updates related to the EASITrain community.

9 issues have been produced with the support of the EASITrain office (A. Yaneva).

Well received, help strengthen the sense of community.

Stories also feed other publications (CERN Courier, Accelerating News):

<https://acceleratingnews.web.cern.ch/news/issue-36/easitrain-esi/closed-loop-nelium-turbocompressor-test-facility>

[View this email in your browser](#)



EASITrain – European Advanced Superconductivity Innovation and Training.
This Marie Skłodowska-Curie Action (MSCA) Innovative Training Networks (ITN) receives funding from the European Union's H2020 Framework Programme under grant agreement no. 764879.

NEWS FROM EASITRAIN

TIME TO DISCUSS THE FUTURE

Announcement of FCC November Week (NoW)

In 2019, the Future Circular Collider Study (FCC) published its Conceptual Design Report (fcc.cdr.web.cern.ch) exploring new concepts for the next generation of intensity and energy frontier colliders and the key enabling technologies. This year, and following the update of the European Strategy for Particle Physics (EPPS), the FCC November meeting Week, set to take



Full archive:

<https://fcc.web.cern.ch/easitrain/Documents/WP1/Project%20Management/Communications/EASITrain%20Newsletters>

Collider Diaries

Collider Diaries

Season 1

(launch June 2021)

Getting inside

What a group of young researchers
left behind to get into the
prestigious CERN research
environment.

Stewart Leith

how I skipped a well paying
job and risked my two week
shy marriage to get into
CERN



Dorothea Fonnesu

how I built a tropical rainforest in
my apartment to keep me sane
during 16 hour workdays.



Vanessa Garcia Diaz

My mother was a rule breaker
and so am I.



Collider diaries is a quick series of 2-5 minute vignettes. Professionally shot interviews mixed with personal photos/video clips and memories from the interviewees' collections. Filming is done at and near CERN. Typical locations, depending on the interviewees are: private apartments, big-science research facilities, restaurants, Alpine landscape.

Collider Diaries is a social network web series



A brief summary

- Prepare & planning: Carefully thinking about the intended message and reaction you hope to get from different audiences. EASITrain demonstrated the gradual build up of communication skills - starting from the kick-off meeting and exploiting a number of instances in the lifetime of the project.
- Provide Connectivity. With a built-in process for passing and receiving critical information, you'll create direct links from top to bottom and bottom to top.
- Open communication: The opinion of every member matters and an effort to balance them was key for the success of the communication activities carried out during the project. Give insights into different perspectives from the different actors.
- Exude Confidence: Need to communicate confidently and make the information disseminated and communicated to have complete meaning to your audience.

Thank you for your attention!