

1 Slide -



Presentation of Students, Lecturers and CAS Team
on Normal- and Superconducting Magnets

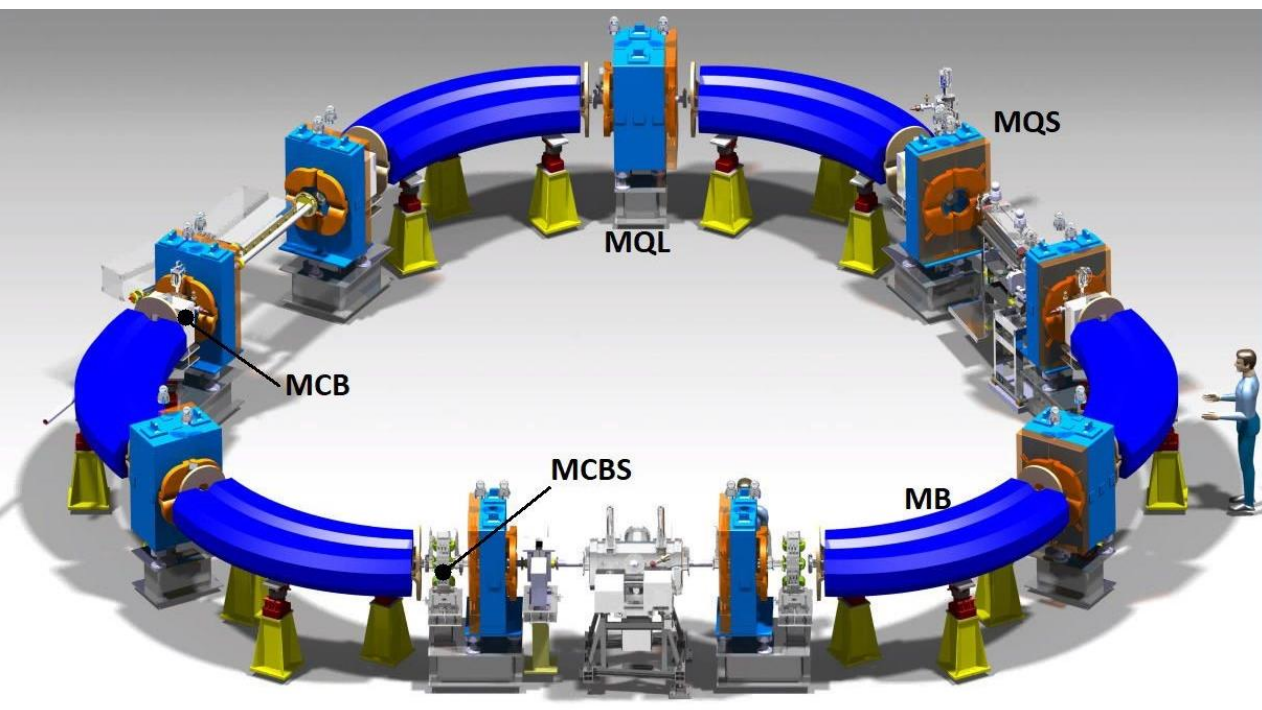
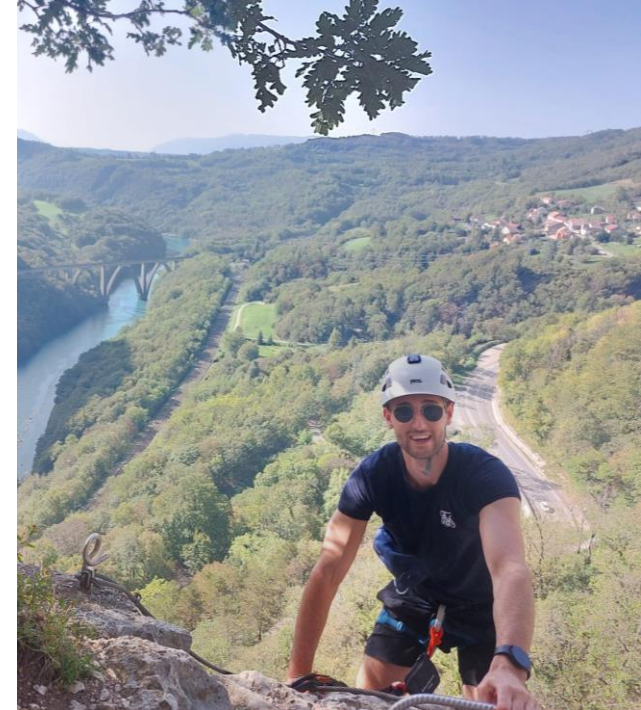
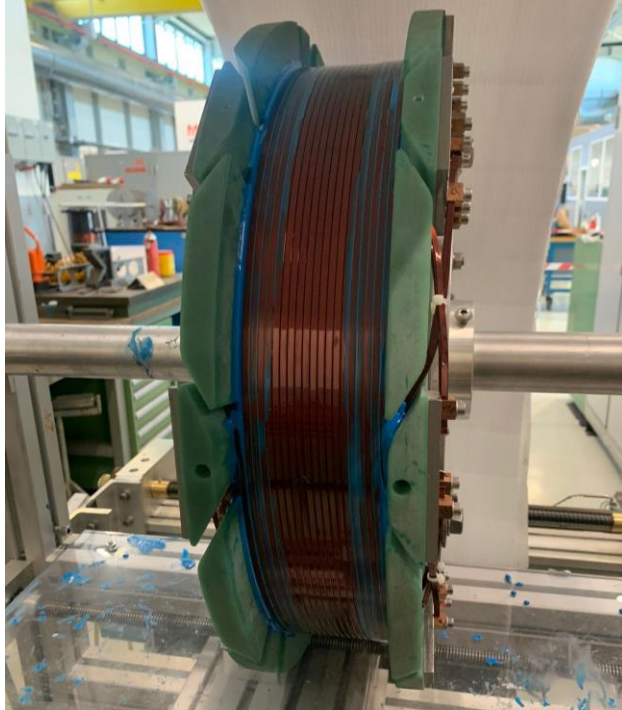
St. Pölten, Austria

20 November 2023

Students

In groups of 6 people come forward

- Daan Flier
- Lucas Francisco
- Henrique Garcia Rodrigues
- Alexander Herrod
- Wang Lishi
- Anton Lu



I am Daan Flier

- 25, from the Netherlands
- MSc student Mechanical Engineer
- Developing magnets for NIMMS
- Festivals, Movies, Formula 1, Climbing, Hiking, Skiing,



Lucas Francisco
29 y.o. physicist



97



lnls.cnpem.br/science/first-doctoral-research-concluded-at-sirius-addresses-superconductive-superhydrides/

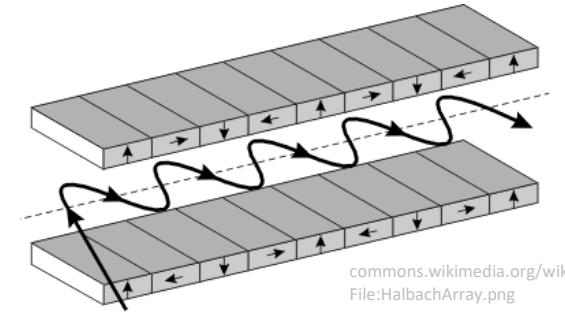
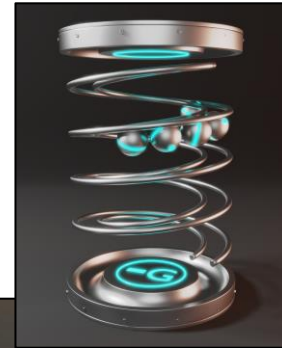
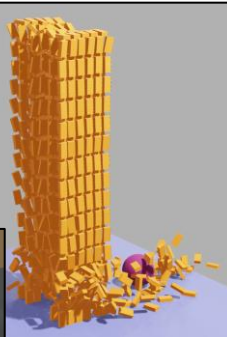


ceramics, cellulose, superconductors, synchrotron...



BA

Some Blender...



commons.wikimedia.org/wiki/File:HalbachArray.png

Today I work mainly on undulators' magnetic projects while starting to venture on other kinds of magnets!



Henrique Garcia Rodrigues



Education

- Apprenticeship in mechanical engineering
- Bachelor of technology in Mechatronics
- Post graduation in Industrial Automation
- M.Eng. In Industrial project Engineering
- Certification in project management, PMI-CAPM

Professional

- Construction labor / cleaning
- CNC Machining
- Product development / 3D-2D drawings
- Teaching Mech. engineering, polytechnical school
- Superconductor magnets since 2021 in PSI-Paul Scherrer Institut

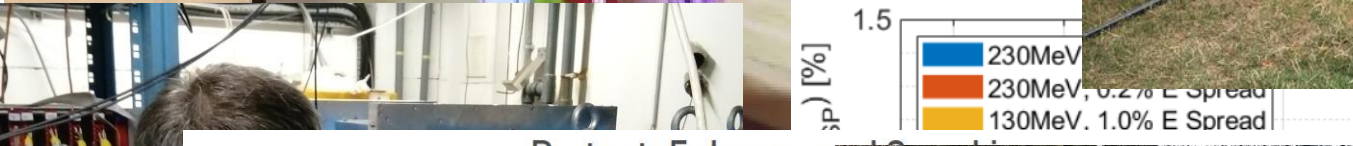
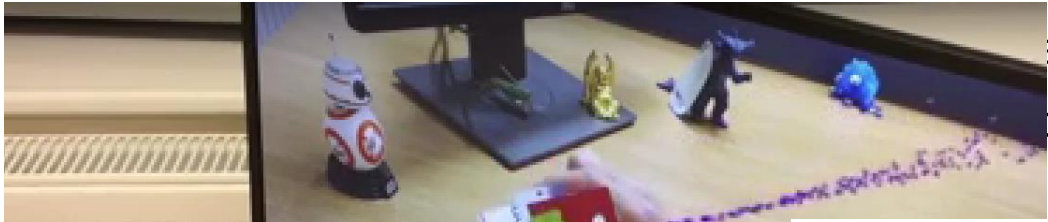
Biased info

- Try to speak Portuguese, English, French, German
- Like physical activity
- Like animals
- Sometimes, talk too much
- Too generalist to specialize in something



“Beam-Dynamics Alex

- 2015: MPhys Theoretical Physics from Lancaster: Gold
- 2019: PhD Accelerator Physics from Liverpool: *Magna Cum Laude*
 - Co-developed toroidal multipole fieldmap fitting
 - Built accurate BMAD model of storage ring, from scratch
 - Wrote integrator for Accelerat-AR accelerator



Protect, Enhance and



One slide - One minute



中国科学院近代物理研究所
Institute of Modern Physics, Chinese Academy of Sciences



• **Name:** Lishi Wang 王力实

• **Education**

September. 2018 - now

University of Chinese Academy of Sciences (UCAS), Lanzhou, China

PH.D student at school, Nuclear Technology and Applications

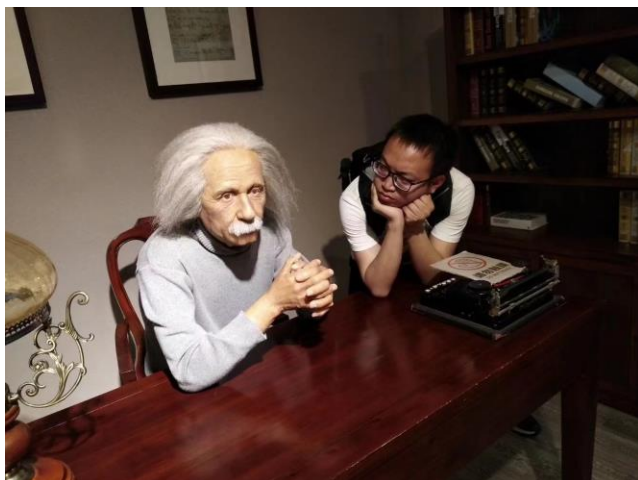
My favorite subject is accelerator physics!

Work Experience

- Participated in the low-temperature measurement of superconducting magnet(ex: MCBRD of CERN). (9/2019-now)
- Developed and updated the low-temperature superconducting testing stations. (6/2021-6/2022)
- Established HIAF cryogenic superconducting magnet test station. (12/2021-now)

My Hobby:

Long-distance running
Table Tennis
Popularization of Science



"Discuss" with Einstein



Participated in the 40th anniversary celebration of UCAS



Table Tennis training



Popularization of Science

Anton Lu

CERN Beams Department

Control Software and Services

Data Science for Beam Operation

From Stockholm, Sweden

Previously KTH Royal Institute of Technology, Stockholm

- M.Sc. Eng. Engineering Physics & M.Sc. Machine Learning (2022)

Now Technical University of Vienna

- Candidate – Doctor of Technical/Engineering Physics
Q1 2023 -

In free time, I do

- Traveling
- Hiking
- Photography
- Coding
- Cooking / Baking
- General shenanigans

When CERN pays me, I develop:

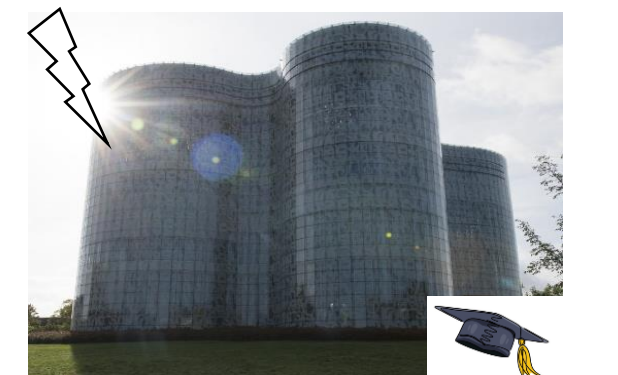
- Machine learning based, high-precision, feed-forward, hysteresis compensation in the Super Proton Synchrotron di/quadru/sextu/octopoles
- Specialty coffee recipes as a Junior Barista in my office



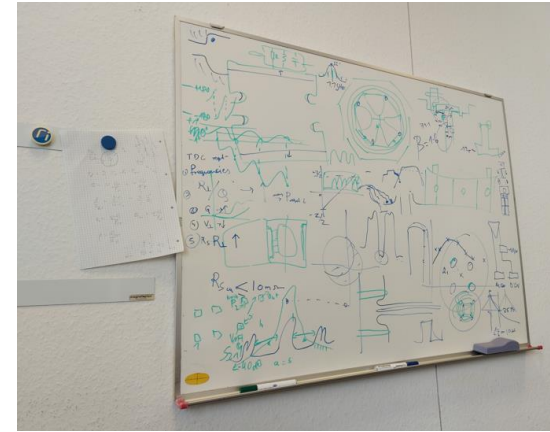
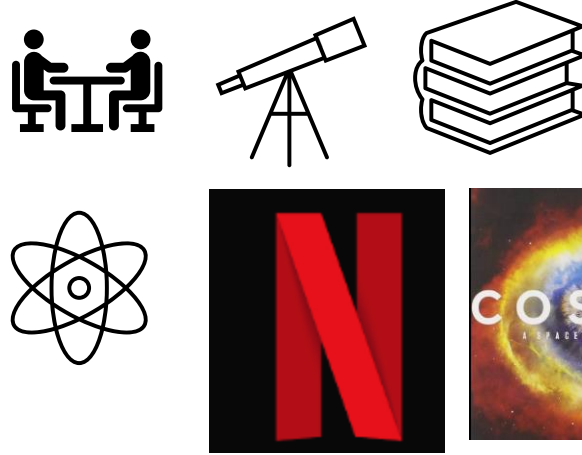
Students

- Ashwinee Padvi
- Geetanjali Sharma
- Michael Sigrist
- Antonio Trigilio
- Riccardo Umberto Valente
- Jasper van der Werf

Ashwinee Padvi



Likes:



I am from India, currently working as Senior Insertion Device Physicist at Diamond Light Source, UK.



Background

- ❖ PhD (2011 - 2014) from Devi Ahilya University, India on the topic “Study of Table-top undulator and Accelerators for Free Electron Lasers.
- ❖ Post Doc (2015 - 2016) from Soleil Synchrotron, France on U15 Cryo-Ready undulator project.
- ❖ Project Engineer (2017- 2018) at Research Instruments GmbH, Germany. I worked on in-vacuum hybrid undulator projects for PETRA III, DESY and CLS.

Hobbies

- ❖ I enjoy learning new things.
- ❖ Travelling.
- ❖ Chatting to friends and family. I am a good listener.
- ❖ Social media.
- ❖ Recently started playing Table-tennis, Pool.
- ❖ Food/sleep/doing absolutely nothing on some weekends.

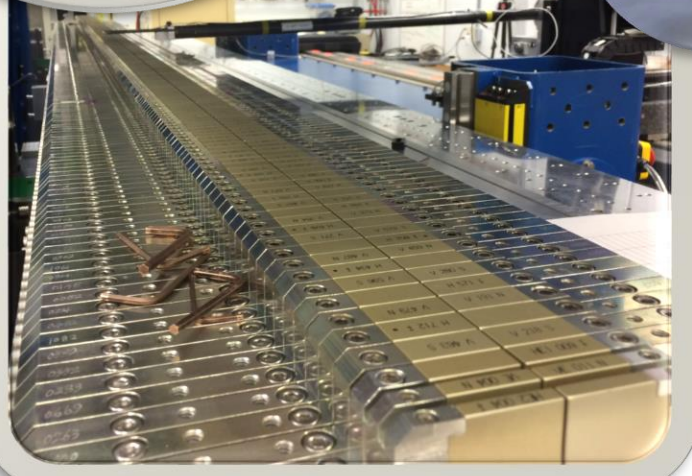
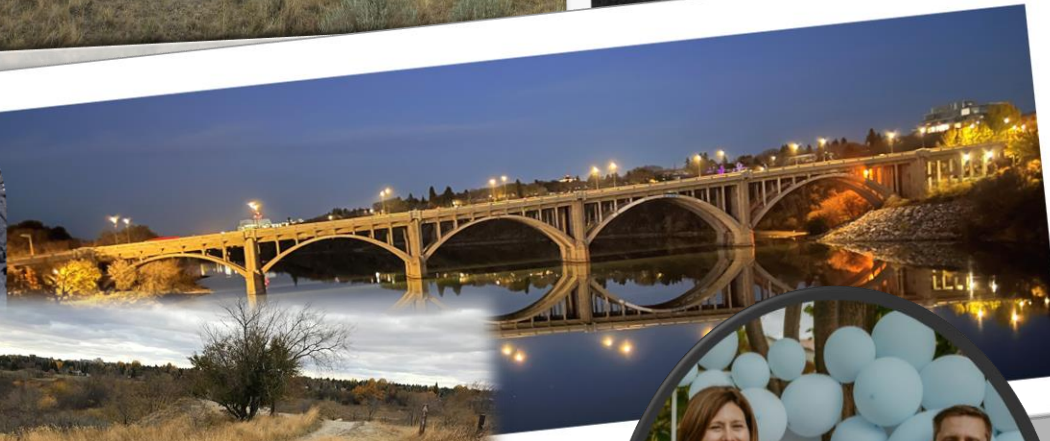
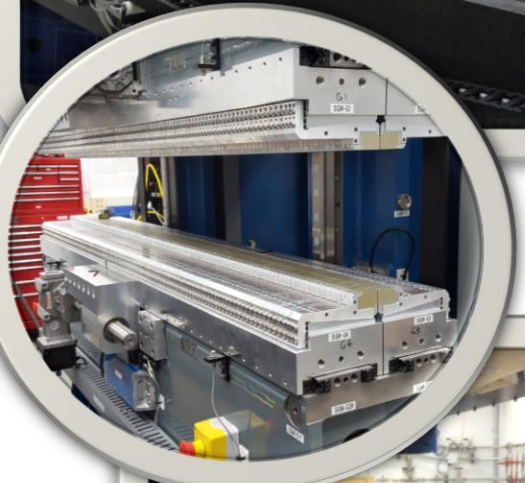
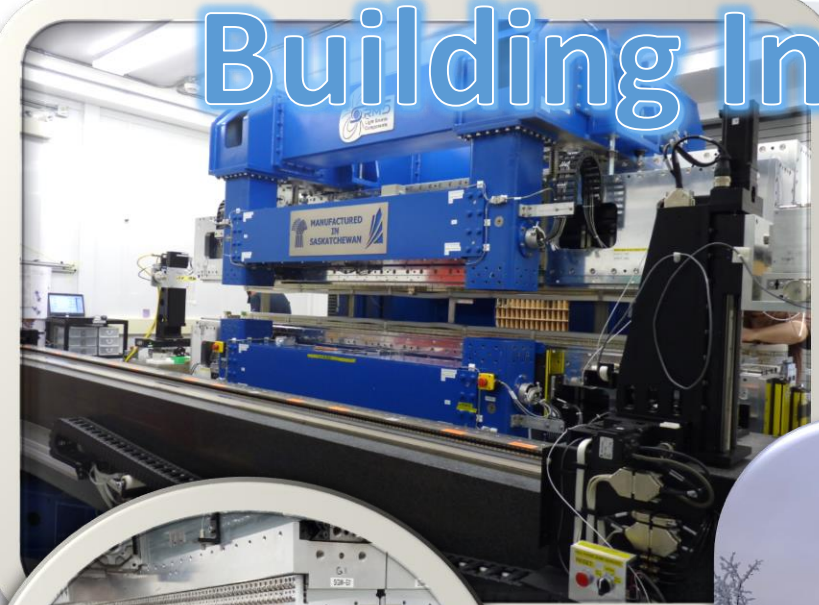
To do/wish list

- ❖ Sky Diving.
- ❖ Skiing.
- ❖ Science short videos/articles for 12-16 years old.
- ❖ Keep exploring known/unknown unknowns.
- ❖, There is no end to this list.



Contact details: geetanjali.sharma678@gmail.com, [Geetanjali Sharma \(researchgate.net\)](https://www.researchgate.net/profile/Geetanjali-Sharma)

Building Insertion Devices in Canada



Nice to meet you!

- **Name and surname:** Antonio Trigilio.
- **Born:** February 5th 1995, in a small town in Sicily.
- **Relationships:** committed.
- **Current location:** Rome (home) and Frascati (work at the INFN National Laboratories).
- **Formation:** Master's degree in Particle & Astroparticle Physics, PhD in Accelerator Physics (in January, almost there!).
- **Professional interests:** Medical physics (particle therapy, FLASH effect), detectors (fluorescence, scintillators, dosimeters), design and engineering of magnets.
- **Present professional activity:** research grant on a superconducting ion gantry for hadron therapy.
- **My passions:** The Magnetic Fields (the band) and all kinds of music, books, cinema, board games and good food.
- **3 things that get on my nerves:** arrogance, bad Italian rock bands (who shall remain nameless), adding water to wine or coffee.
- **My motto:** "Be yourself; everybody else is already taken". (Oscar Wilde)
- **My version:** "Nobody ever died from looking like an idiot".



Riccardo Umberto Valente

Technological Researcher at
INFN – LASA (Milan)



REASONS TO ATTEND CAS SCHOOL

Focus on magnet modeling
Hands-on activities
Related technologies

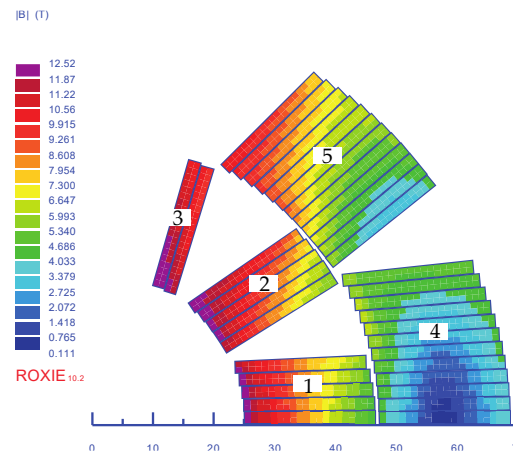


Education

- Master's degree in Physics
- Ph.D. in Accelerator Physics at La Sapienza (Rome, 2022)

Thesis:

«Electromagnetic design optimization of the 12 T $\cos\theta$ dipole model for the FCC»



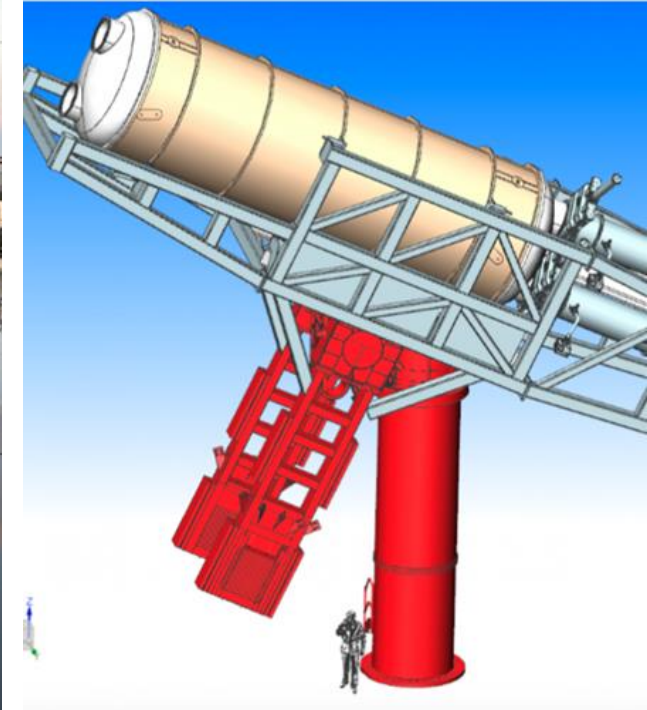
Research Activity

- Nb₃Sn High Field Accelerator Superconducting Magnet
Falcon Dipole Project
- Strongly Curved NbTi Superconducting Magnets for Ion Gantry (Hadrontherapy)
SIG, HITRI Projects



CAS course 'Normal- and Superconducting Magnets' - 2023 - Sankt Pölten, Austria





I am Jasper van der Werf

- From Amsterdam
- Works for CERN in Geneva as magnet Engineer/technician
- Studied Mechanical engineering in Amsterdam and Enschede

Students

- Xinlong Zhu
- Davide Cuneo
- Nadia Stegani
- Yiqin Lei
- Weiyu Qiao
- Jan-Magnus Christmann

One slide – One minute

➤ **Name** Xinlong Zhu 朱新龙

➤ **Education**

September. 2022 - now

University of Science and Technology of China (USTC), Hefei, China

Ph.D student at school of Energy and Power Engineering



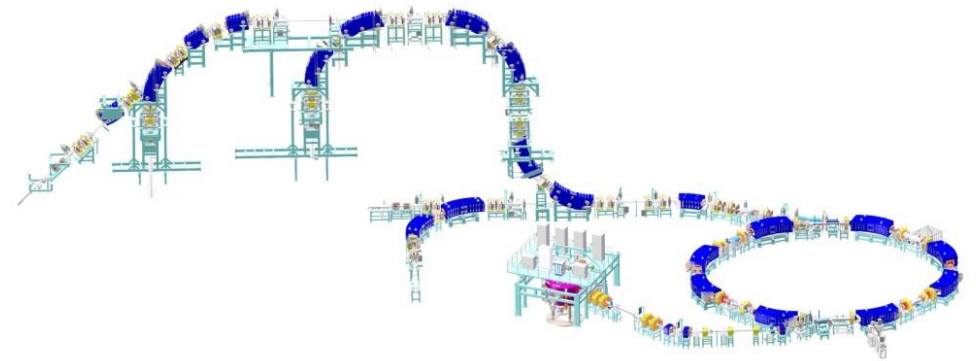
➤ **Work Experience**

Jul. 2013 -Oct. 2018

Institute of Modern Physics (IMP), Chinese Academy of Sciences, Mechanical Design Group, Engineer;

Nov. 2018 - now

Lanzhou Ion Therapy Co., Ltd (LANITH), Chief Mechanical Engineer;

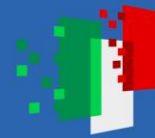




Finanziato
dall'Unione europea
NextGenerationEU



Ministero
dell'Università
e della Ricerca



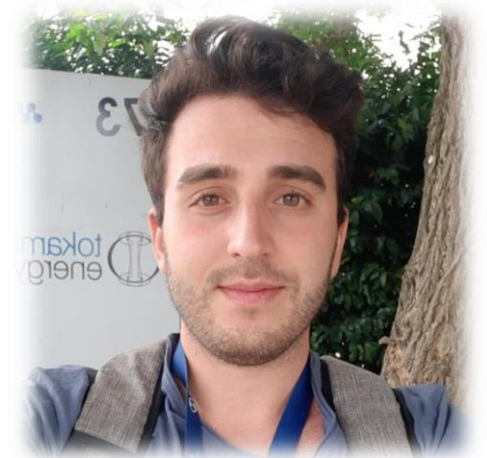
Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA



- ❑ **Ph.D. student** in «Information Technology and Electrical Engineering (ITEE)» at University of Naples Federico II (2023 - on going).



Magnetic and electric measurements for HTS cables and magnets in the framework of the national **IRIS** (Innovative **R**esearch **I**nfrastructure on applied **S**uperconductivity) **project**.



- ❑ Master Degree in **Mechanical Engineering** at University of Tuscia, DEIM (2020-2022).

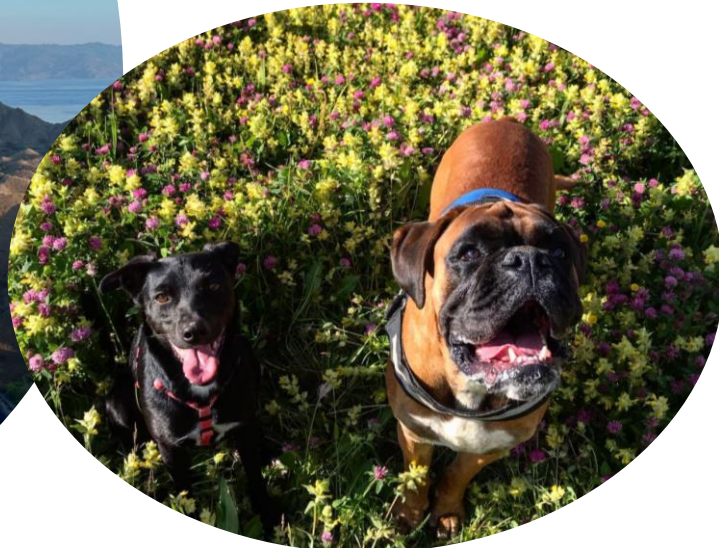


Thesis: «Simulation and optimization of the distributor within ST40's flowing liquid lithium divertor.»

“The way to get started is to quit talking and begin doing” – Walt Disney



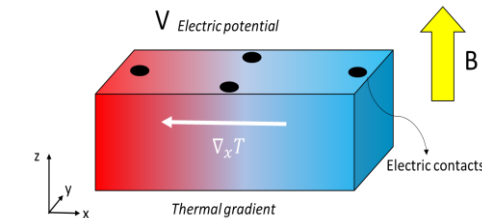
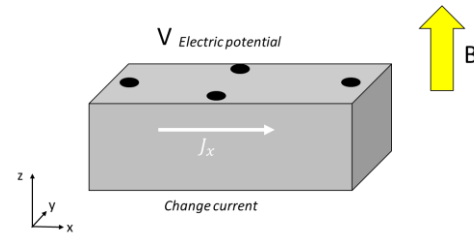
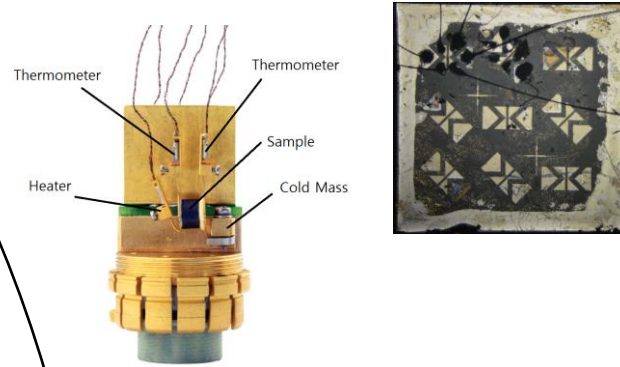
Who I am



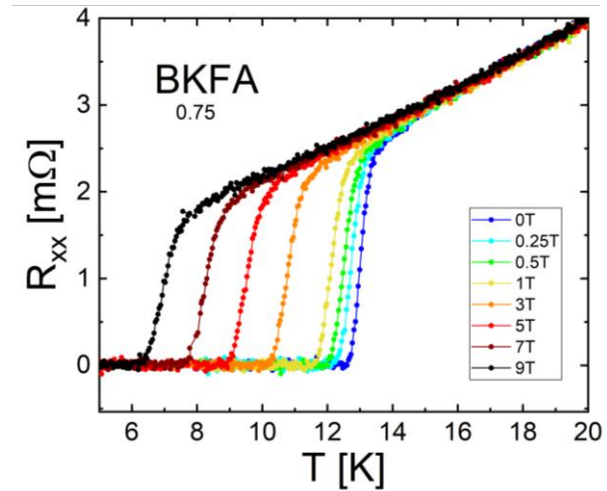
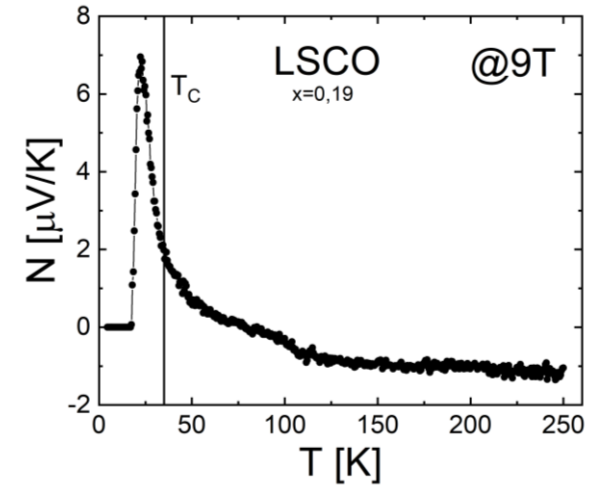
My Work



Università di Genova



- Resistivity (ρ)
- Hall Effect (ρ_{xy})
- Seebeck Effect (S)
- Nernst Effect (N)
- Thermal conductivity (k)





E-mail:15902761400@163.com

Telephone:+86 15902761400



CHINA

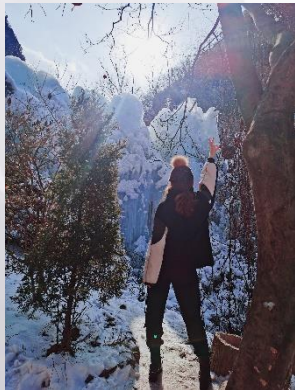
Lei Yiqin/雷怡琴

Date of Birth: 2th Mar.1996

Degree: Master

Research Direction: AC-loss calculation
Analysis of Multiphysical Field Coupling in
Superconducting Magnets

Hobby

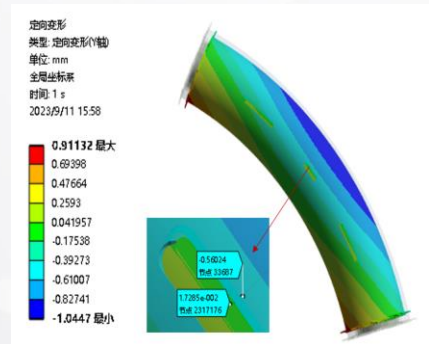
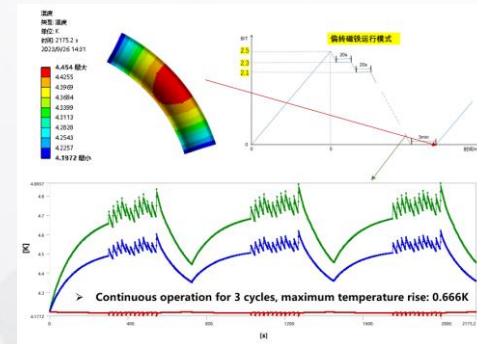


- Skating, Archery, Travel Photography, Racing
- Likes things that are full of artistry
- Likes to try many new things

Work Experience:

Hangzhou Jiafu Technology Co., LTD, Magnet TechnicalgroupEngineer.

- Cancer accelerator operation and maintenance at Lanzhou.
- Design of conventional magnet.
- Calculation of AC losses of superconducting magnets
- Calculation of electromagnetic structure and conduction cooling of superconducting magnets.



Looking forward to communicating with you!

One slide-One minute



Weiyu Qiao

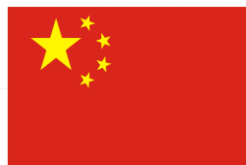
乔威宇

Email

qiaow1996@163.com

Telephone

+86 18859273287



CHINA

Date of Birth: 5 April 1996

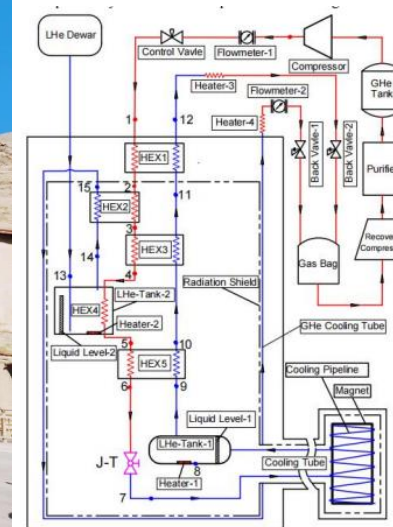
Degree: Master

Graduation school: Lanzhou University & Institute of Modern Physics, China

Research Interests: Cryogenics & Magnet Design

Work Experience: Hangzhou Jiafu Technology Co., LTD, Magnet Technical group, Engineer. (June. 2022- now), Design of conventional magnet and superconducting cryogenic system.

Hobby: Traveling; Singing; Swimming



Hope to make new friends here!

ME IN A NUTSHELL



Personal Information:

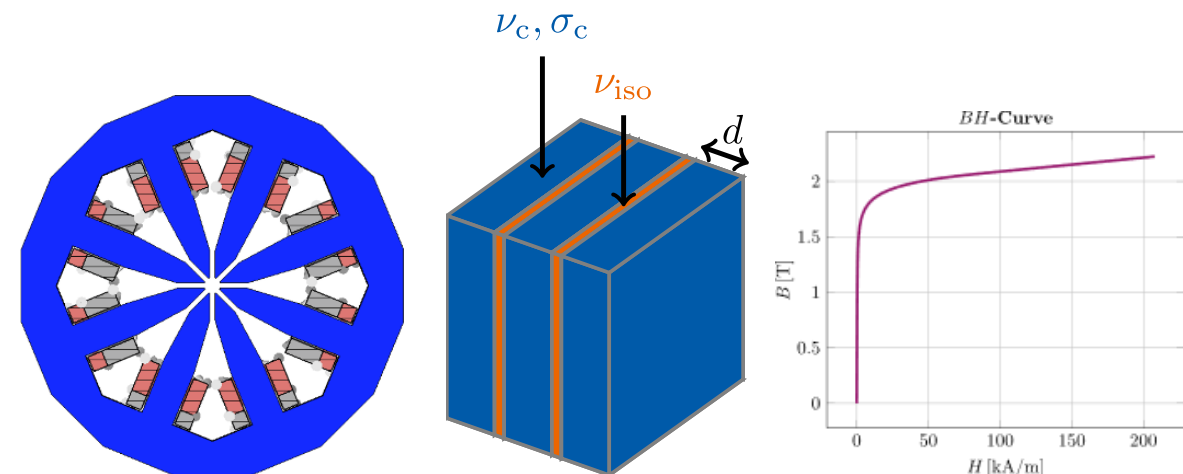
- Name: Jan-Magnus Christmann
- Age: 26
- Hobbies: Soccer, Tennis, Swimming, Skiing, ... almost all sports 😊

Professional Background:

- PhD student in electrical engineering
- Institute for Accelerator Science and Electromagnetic Fields (TEMF) at TU Darmstadt

Research Topics:

- FE simulations of fast corrector magnets for PETRA IV at DESY
- Eddy current effects, saturation, hysteresis
- Homogenization techniques, harmonic balance FEM



Students

- Antonio Esposito
- Martin Eibach
- Mingyao Wang
- Enrico Felcini
- Ot Dams
- Thomas Margreiter

Antonio Esposito



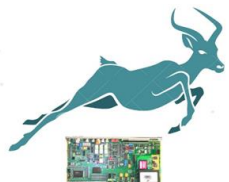
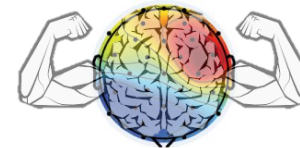
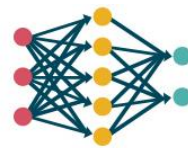
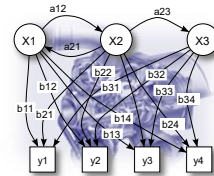
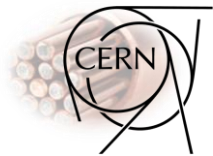
➤ Research fellow/Assistant professor

❖ Ph.D. in **Metrology** at Politecnico di Torino (2018-2021)

- thesis: «Instrumentation for daily-life brain-computer interfaces»

❖ Master Degree in **Electronic Engineering** at University of Naples Federico II (2011-2017)

- thesis: «Performance improvement of a current comparator quench detection system for superconducting cables»



IMPALAB

life is non-linear



- Physicist (10 years in Penning-trap mass-spectrometry)
- Now: Technical Project Management of Magnet Procurements since 2018
- Married, 1 child
- Hobbies:
 - Geocaching (85000 km traveled since 2015)
 - Building Linux servers
 - Pen and Paper RPG





Mingyao Wang

wangmingyao09@163.com

+86 13016460860

**Major : Magnets design for the Medical ion accelerator
Electronic septum、 magnetic septum、 superconducting magnet**

Hobby : ball game (basketball、 volleyball)

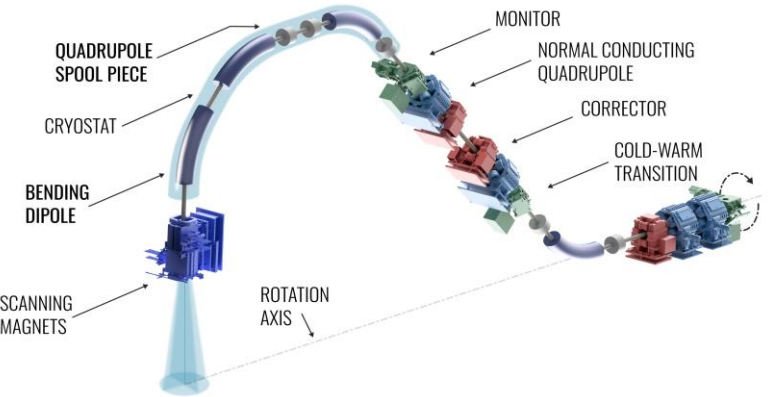
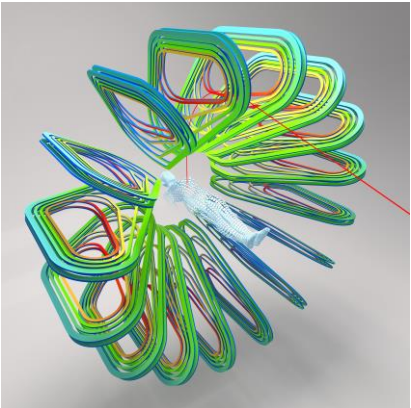
Enrico Felcini

32 years old
@ CERN 2015 - 2020
PhD @ EPFL (CH) 2017-2020
@ CNAO (IT) since 2020

Superconducting and resistive magnets, with a focus hadron therapy applications (gantries)



I love playing volleyball and my cat, but also cooking, food and wine (...I am Italian, after all)





Dams Ot



Visit from stork



Master of Science
Electromechanical Engineering



Project Engineer **sck cen**

- Deflectors & Focusing Devices
- Interception Devices

1998

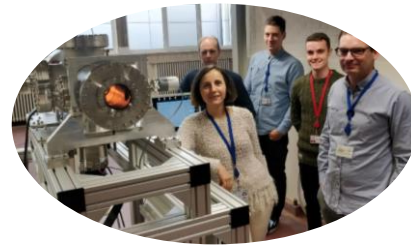


2019

2020

2021

2021

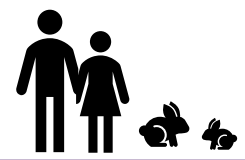


Internship **sck cen**

- Thermal-Electrical behavior of ISOL-system target container

Test & Qualification Engineer

- Life sciences Industry



3D-printing



Boardgames



Miniature painting



hiking





Thomas Margreiter



About me:

- Age: 30
- Origin: Austria, Tirol

Education:

- Since 2022 PhD candidate in engineering physics
 - Topic: B-Field regulation of MedAustron synchrotron magnets
- 2016 – 2021 BSc and MSc degree in Mechatronics
- 2008 – 2019 Apprenticeship & maintenance electrician

Hobbies:

Running, Trailrunning, Bouldering, Skiing, Museums & Galleries

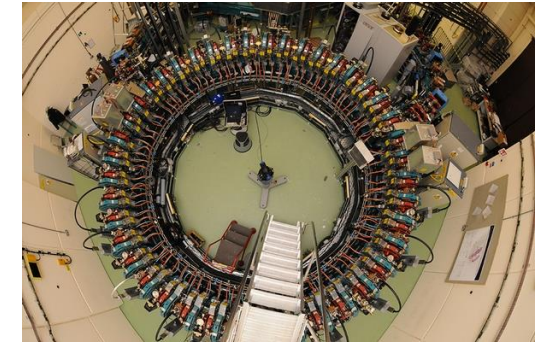
Students

- Kieran Geiger
- Kathrin Götze
- Jose Maria Gomez
- Florian Legand
- Siara Sandra Fabbri
- Giovanni Succi

Kieran Geiger

- **From:** London
- **Graduated:** Mechanical Engineering (Bath, 2019)
- **Work at:** CERN
- **Used to work at:** ISIS neutron spallation source (Oxfordshire, UK)
- **Some things I like:**
 - Writing bad python code
 - Fixed field accelerators
 - Outdoor swimming
 - Swiss public transport
 - My cat

Hiking + Swiss trains =



EMMA horizontal FFAG
Daresbury, UK (*I wasn't involved!*)

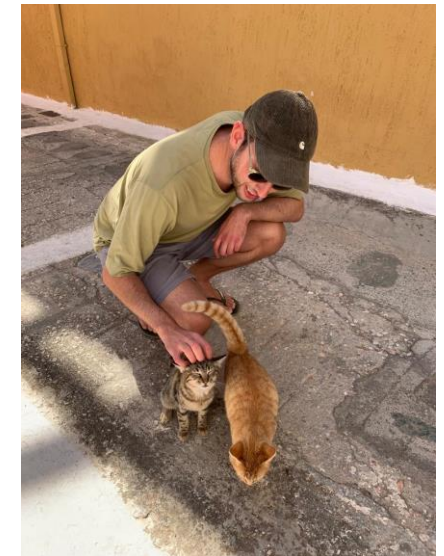


← Port-Meadow, Oxford



↑ Jonction, Geneva

Swimming



My cat + not my cats



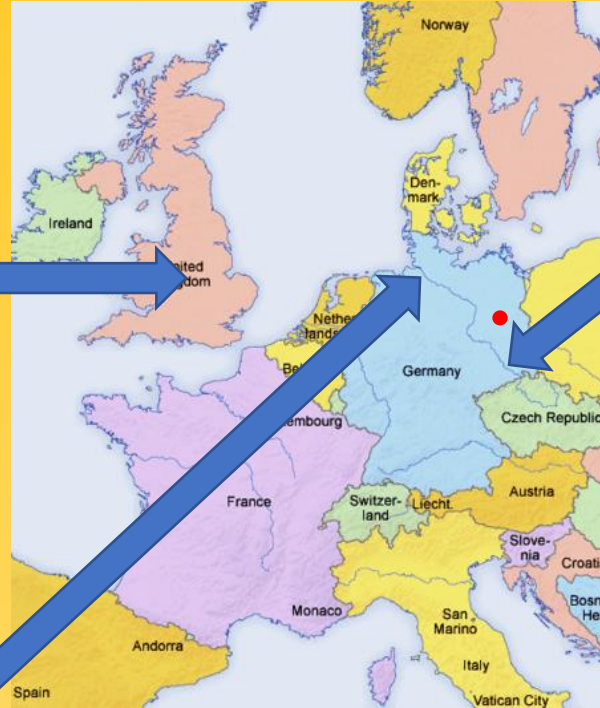
Kathrin Götze

DESY Hamburg - Undulator group



2016-2021: Postdoc at University of Warwick, UK

- Fundamental research on superconductors and exotic magnets at low temperatures, high magnetic fields and high pressures.



Since 2021: Postdoc at DESY (German Electron Synchrotron) Hamburg, Undulator group

- Magnetic measurements, undulator tuning, technical development
- Visit my poster on Thursday



- 2006-2011: Master's degree in physics at TU Dresden
- 2011-2016 PhD&postdoc at Dresden High Magnetic Field Lab
- Electronic properties of heavy-fermion systems at low temperatures (100 mK!) and high magnetic fields (70 T)

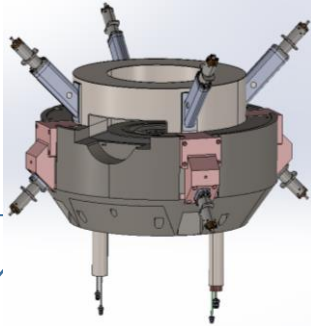
When I'm not working or studying:



Reading, cycling, sports, board games, arts, music...



Looking forward to interesting and exciting two weeks!



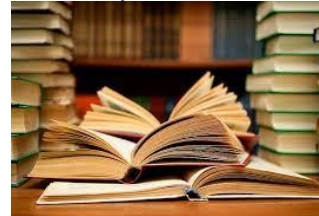
Chema Gomez

(josemaria.gomezpalomino@ciemat.es)

Background studies:
Nuclear Engineering
Fluid Dynamics

Current position:

**Particle Accelerators Unit
CIEMAT (Spain)**



**BON
VIVANT**



**von KARMAN INSTITUTE
FOR FLUID DYNAMICS**



Images courtesy of:
IEEE spectrum
Olympics.com
Wikipedia.com
Aviation stack Exchange
Onda cero
Ciemat
VKI
Bon Vivant
Nuclear España



Florian Legend

- **Age:** 29
- **Master degree:** Electrical engineer
- **Traveling:**
 - Erasmus / Exchange → 
 - Backpacking in Asia → 
- **MedAustron:** Started in 2020
- **Music:** Guitar, drums, bass, electronic music
- **Sport:** Swimming, cycling, running, skiing
- **Chess:** (Beginner: 900 rapid – 700 blitz)
- **Video games:**   
- **Formula 1** 



Siara Fabbri

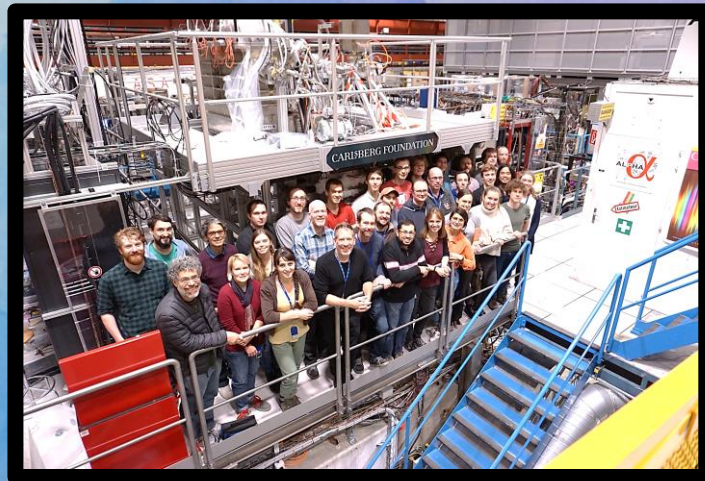
- From California/Arizona
- BSc at UCLA, California
- 2017 – 2022: PhD and PDR in the ALPHA Experiment at CERN
- 2023 – present : CERN Research Fellow for the IMCC



El Capitan, Yosemite



New Baseline 8B+



The ALPHA Collaboration 2018



Article

Observation of the effect of gravity on the motion of antimatter

<https://doi.org/10.1038/s41586-023-06527-1>

Received: 6 May 2023

Accepted: 9 August 2023

Published online: 27 September 2023

Open access

Check for updates

E. K. Anderson¹, C. J. Baker², W. Bertsche^{3,4,5,6}, N. M. Bhatt⁷, G. Bonomi⁸, A. Capra⁹, I. Carli⁸, C. L. Cesar⁷, M. Charlton², A. Christensen⁸, R. Collister^{8,9}, A. Cridland Mathad², D. Duque Quiceno^{8,9}, S. Eriksson², A. Evans^{8,9}, N. Evetts⁸, S. Fabbri¹⁰, J. Fajans^{8,9,11}, A. Ferwerda¹, T. Friesen¹², M. C. Fujiwara⁸, D. R. Gill⁸, L. M. Golino¹³, M. B. Gomes Gonçalves², P. Grandemange⁸, P. Granum¹, J. S. Hangst^{10,11}, M. E. Hayden¹², D. Hodgkinson¹⁴, E. D. Hunter⁸, C. A. Isaac², A. J. U. Jimenez⁸, M. A. Johnson¹⁴, J. M. Jones², S. A. Jones¹⁴, S. Jonsell¹⁵, A. Khranov^{8,9,16}, N. Madsen¹, L. Martin¹, N. Massacret⁸, D. Maxwell⁷, J. T. K. McKenna¹³, S. Menary¹⁶, T. Momose^{8,9,17}, M. Mostamand^{8,17}, P. S. Mullan^{2,18}, J. Nauta⁸, K. Olchanski⁸, A. N. Oliveira¹, J. Peszka^{8,9}, A. Powell¹², C. Ø. Rasmussen¹⁹, F. Robicheaux²⁰, R. L. Sacramento⁸, M. Samed²¹, E. Sarid^{22,23}, J. Schoonwater⁸, D. M. Silveira¹, J. Singh⁸, G. Smith^{8,9}, C. So⁸, S. Stracka²⁴, G. Stutter²⁵, T. D. Tharp²⁶, K. A. Thompson², R. I. Thompson^{8,12}, E. Thorpe-Woods², C. Torkzaban⁸, M. Urioni², P. Woosaree² & J. S. Wurtele⁸



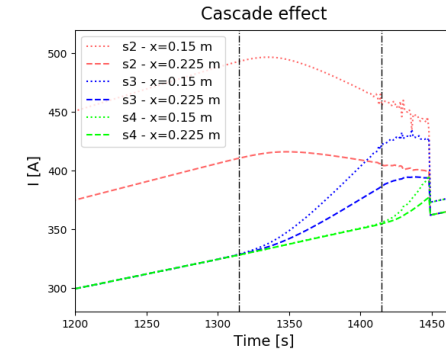
Giovanni Succi

- I was born 1994, Italian
- Energy engineering at University of Bologna, 2013 - 2019



- Volontaire International, 2019 – 2021, at CERN

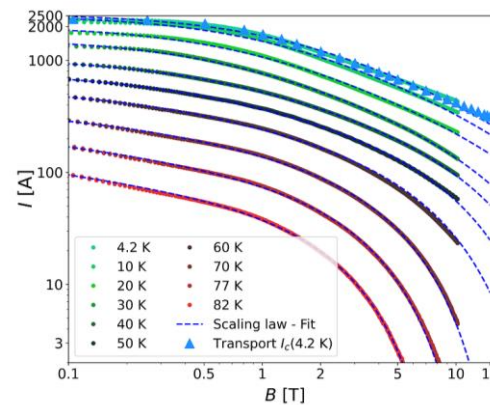
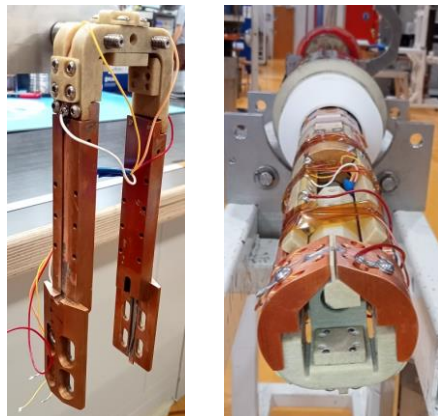
G. Succi, et al., *On the effect of strand damage on the operating margin of a Nb₃Sn Rutherford cable*, Cryogenics, vol. 125, 2022.



- Currently in the PhD studies:

Experimental and Modelling Analysis of REBCO tapes
(University of Southampton and CERN)

G. Succi, A. Ballarino, Y. Yang, *Magnetic Field and Temperature scaling of the critical current of REBCO tapes*, submitted for publication



Passions



Students

- Antonio Bianchi
- Giovanni Succi
- Claire Pearce
- Simon Straarup
- Adnrea Gagno
- Maisui Ning

Antonio Bianchi

- **PhD** at University of Torino and INFN
 - Dissertation: “R&D Studies on Eco-friendly Gas Mixtures for Resistive Plate Chambers at the ALICE Muon Spectrometer”
- **Postdoctoral research:** System Run Coordinator of the Muon Identifier
- **CERN Senior Fellowship:** thermal mapping system for superconducting radio-frequency cavities

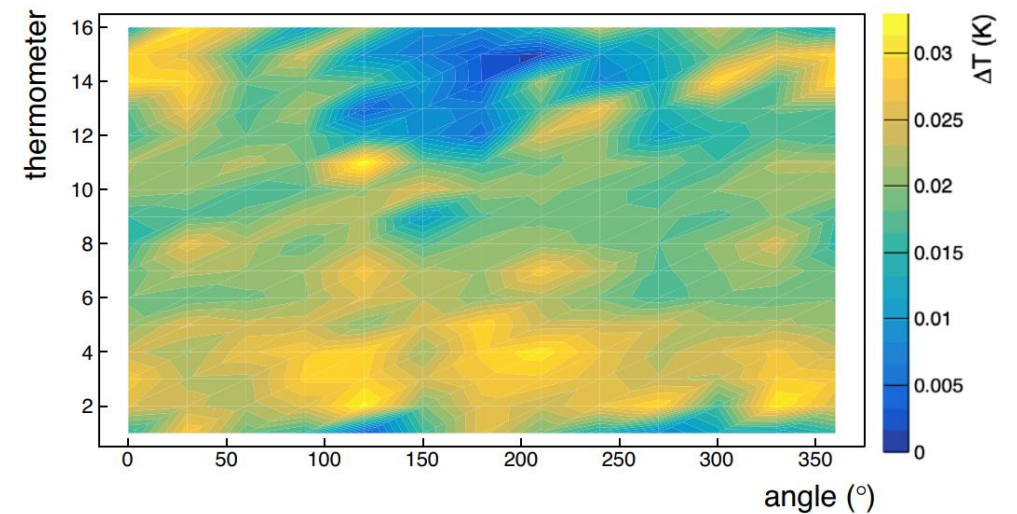
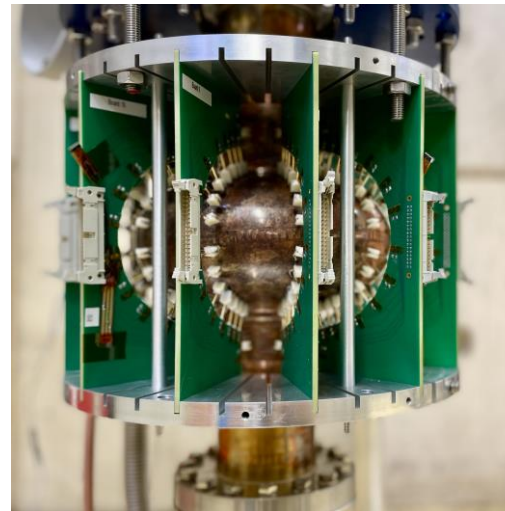


ALICE



- **INFN Technologist**

- IRIS Project



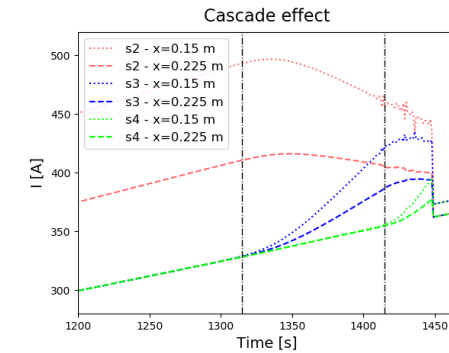
Giovanni Succi

- I was born 1994, Italian
- Energy engineering at University of Bologna, 2013 - 2019



- Volontaire International, 2019 – 2021, at CERN

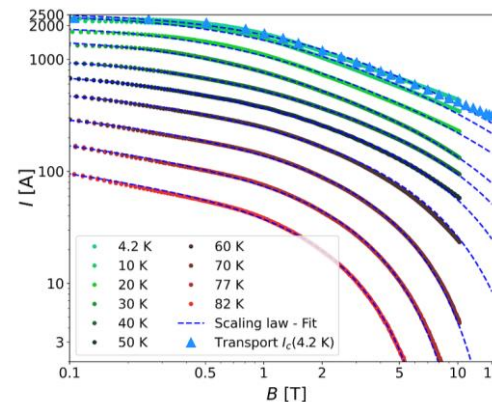
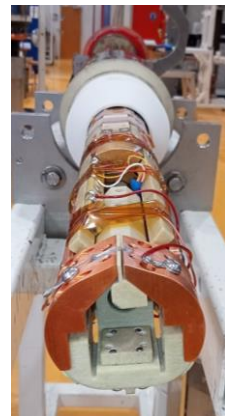
G. Succi, et al., *On the effect of strand damage on the operating margin of a Nb₃Sn Rutherford cable*, Cryogenics, vol. 125, 2022.



- Currently in the PhD:

Experimental and Modelling Analysis of REBCO tapes
(University of Southampton and CERN)

G. Succi, A. Ballarino, Y. Yang, *Magnetic Field and Temperature scaling of the critical current of REBCO tapes*, submitted for publication



Passions



Claire Pearce

- Resides in Vancouver, British Columbia, Canada
- Graduated December 2022
 - Bachelor of Engineering in Mechanical Engineering from the University of Victoria (Victoria, Canada)
- Working at TRIUMF (located in Vancouver, Canada) as a Magnetic Beamlines Engineer-in-Training
 - Started February 2023
 - Completed a co-op in the SRF department during undergrad working on cryomodule design
 - Working to obtain Professional Engineer designation
- Hobbies:
 - Dance, knitting, playing piano, reading



Marine Engineer - *gone astray*



Working with cold mass assembly on HL-LHC magnets

Analysing 3D geometric data of magnets:

- MQXFB [Nb_3Sn]
- Corrector Package
- Separation Dipole



Spare time: Mountains – *coming from a very flat country*



Just started biking – *when a Dane wins Le Tour de France, then...*

Simon Straarup 



Research Activity

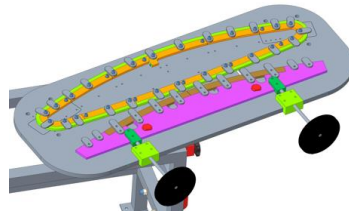
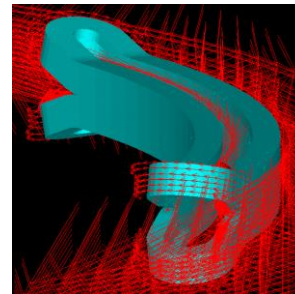
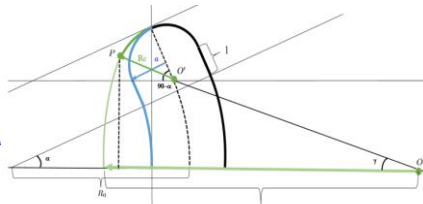
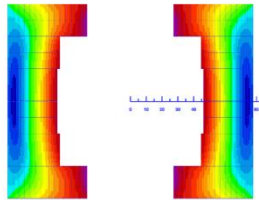
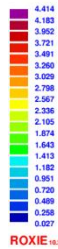


Università
di **Genova**

- Effect of mechanical deformations on transport properties of Nb_3Sn wires



- Designing and winding of superconducting bending dipoles for ion gantry



CNAO
Centro Nazionale di Adroterapia Oncologica

About Me

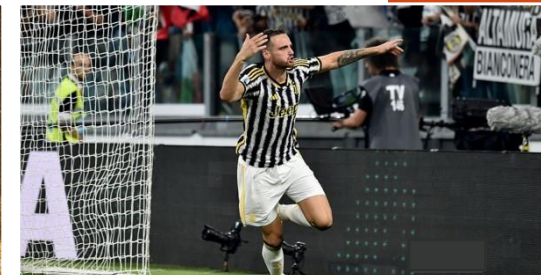
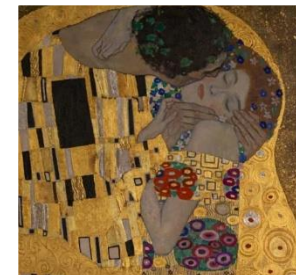
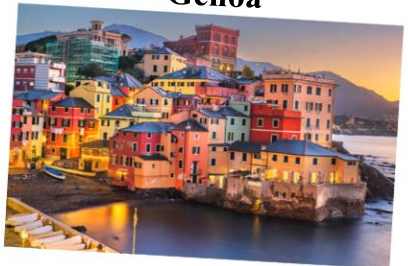


Andrea Gagno
Italy 🇮🇹
29 y.o.

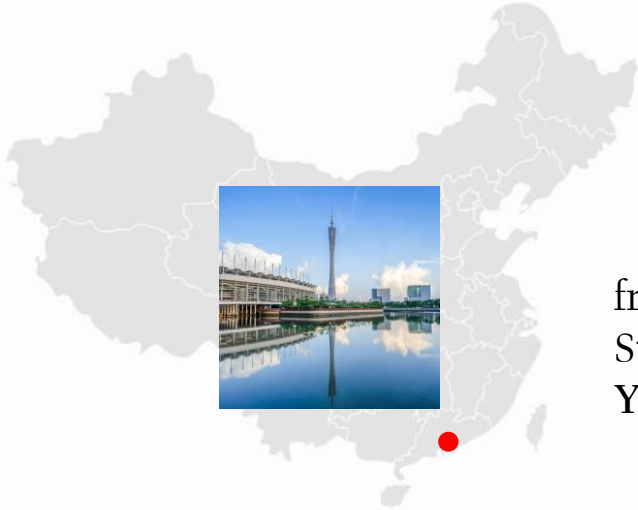
Taggia



Genoa



Maisui Ning



from Canton, China
Studied optic for one year @Sun
Yat Sen University



Went to Karlsruhe, Germany in 2013
Studied physics and worked @ Karlsruhe
Institute of Technology



My free time...

- ✓ Learning new languages: currently Japanese, Spanish & Catalan
- ✓ Traveling around
- ✓ Swimming
- ✓ Writing fanfictions
- ✓ Etc..



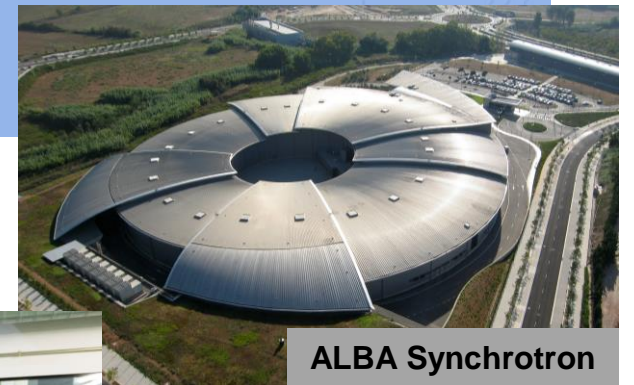
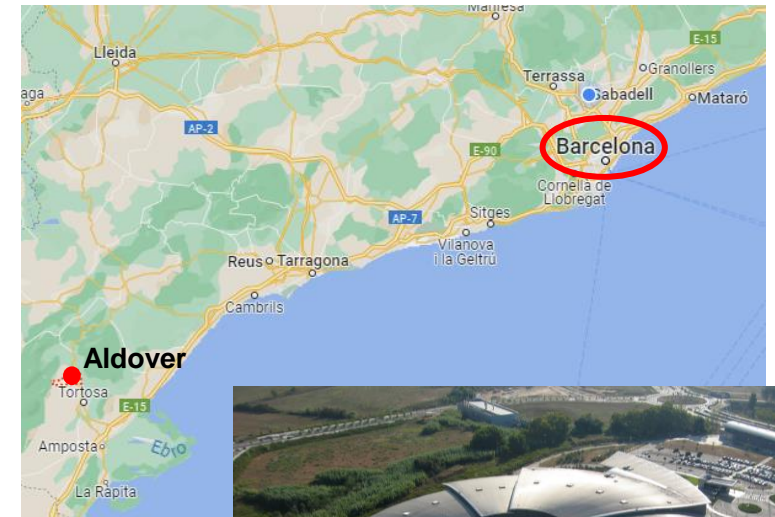
- Joined ALBA magnet group from January, 2023
- Mainly responsible for magnet design for the ALBAII project

Students

- Andrea Fontanet Valls
- Simon Otten
- Penelope Quassolo
- Jaroslaw Wiechecki
- Aleksandra Bartkowska
- Veronica Ilardi

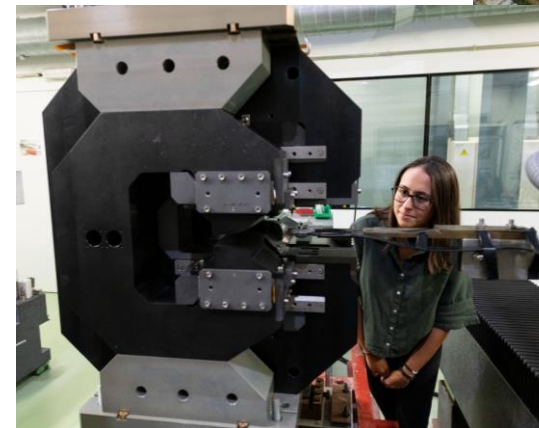
Andrea Fontanet

- Born in Aldover in 1997.
- Studies in **Physics Engineering**.
Polytechnic University of Catalonia (UPC), Barcelona.
- **CERN Technical Student**.
CERN Test and Magnetic Measurements Section.
- Now: **IDs & Magnets Engineer** at ALBA Synchrotron (Barcelona).
Design of magnets for ALBA II.



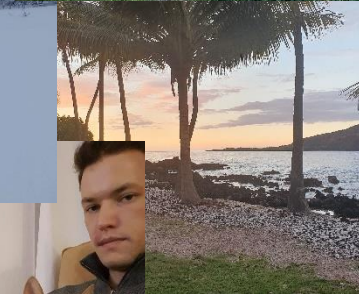
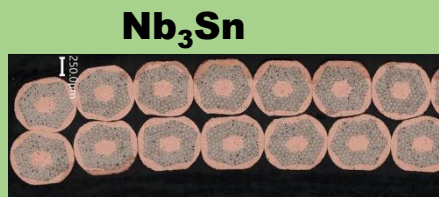
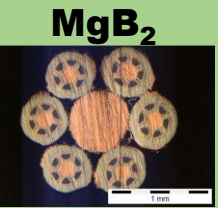
Hobbies

Cooking
Climbing
Hiking
Sailing

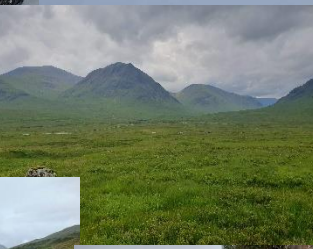
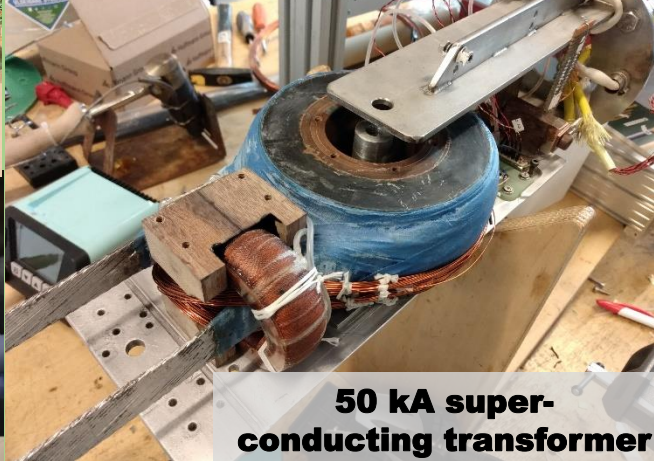


Simon Otten

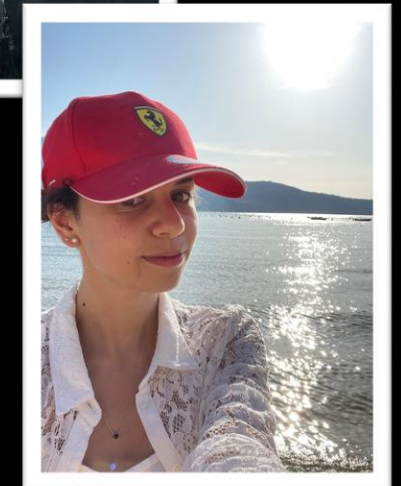
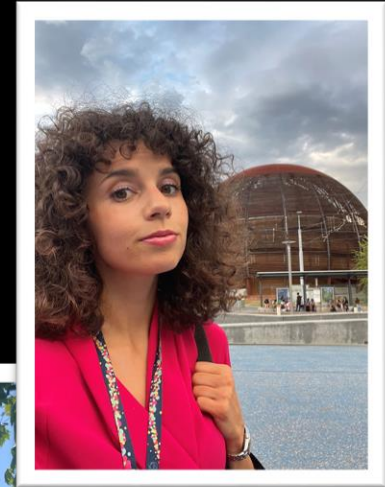
EMS research group



My work: testing of different SC cables: I_c, AC loss, stability, mechanical properties etc.



PENELOPE MATILDE QUASSOLO

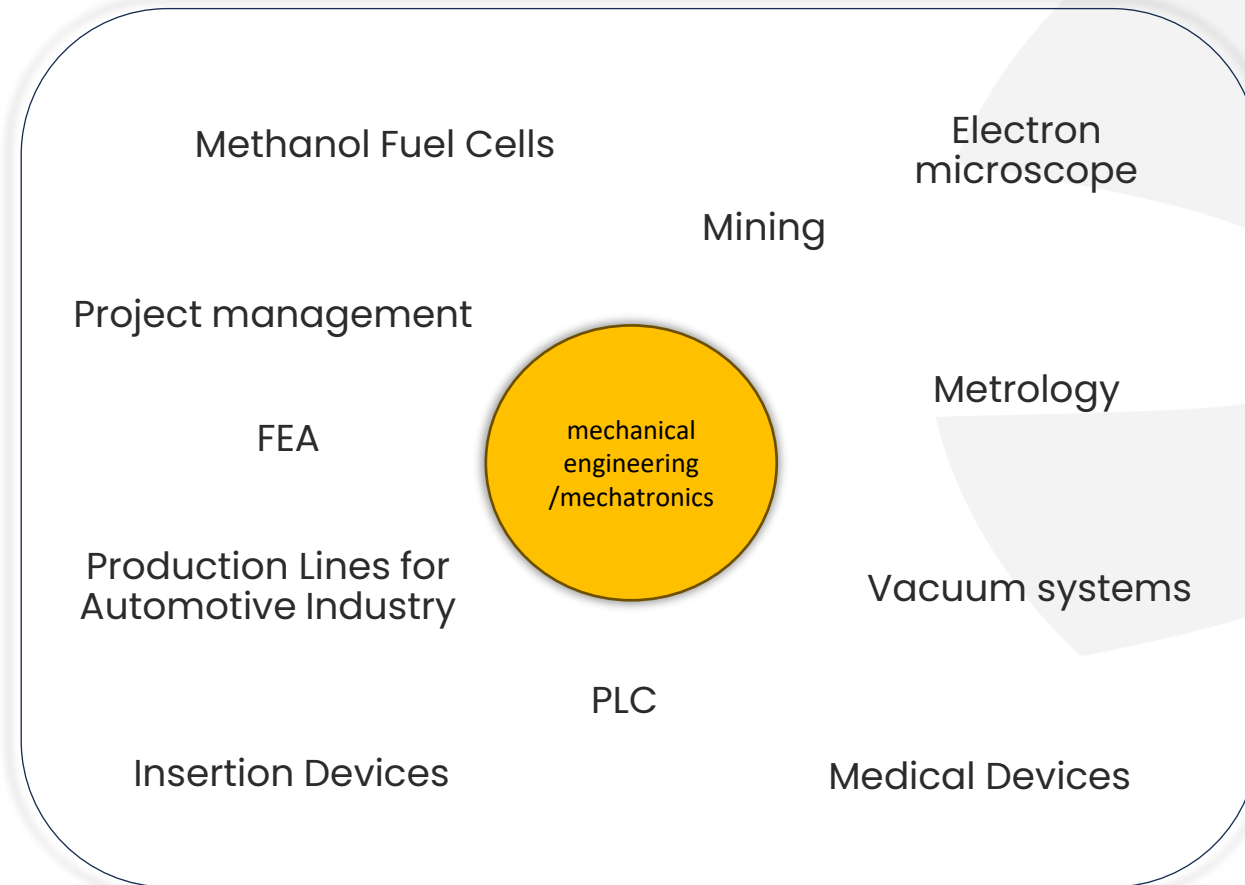


- Mechanical engineer since 2021
- Fellow @ CERN working on superconducting magnets since 2022
 - MQXF mechanical analysis and modelling
- Skiing, hiking, running, yoga
- Formula 1

Jarosław Wiechecki

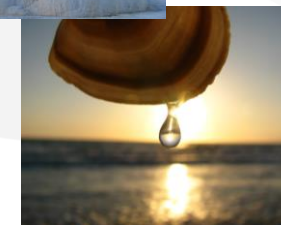
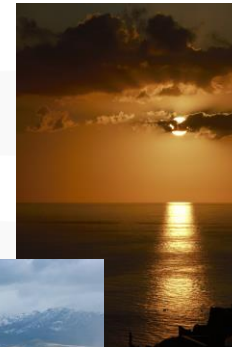
National Synchrotron Radiation Centre Solaris (Poland)

Coordinator of the Magnets, Power Supplies and Insertion Devices Section



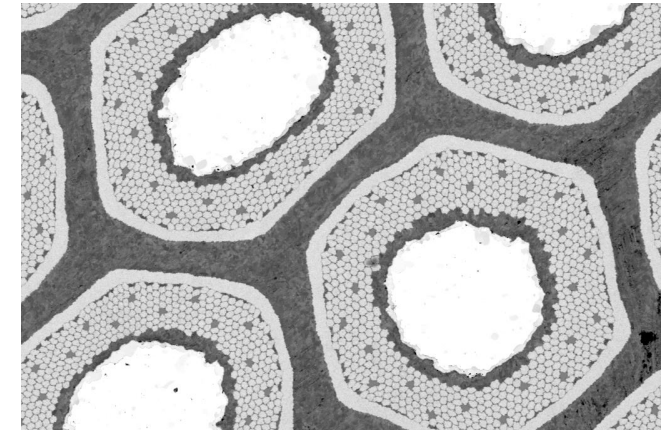
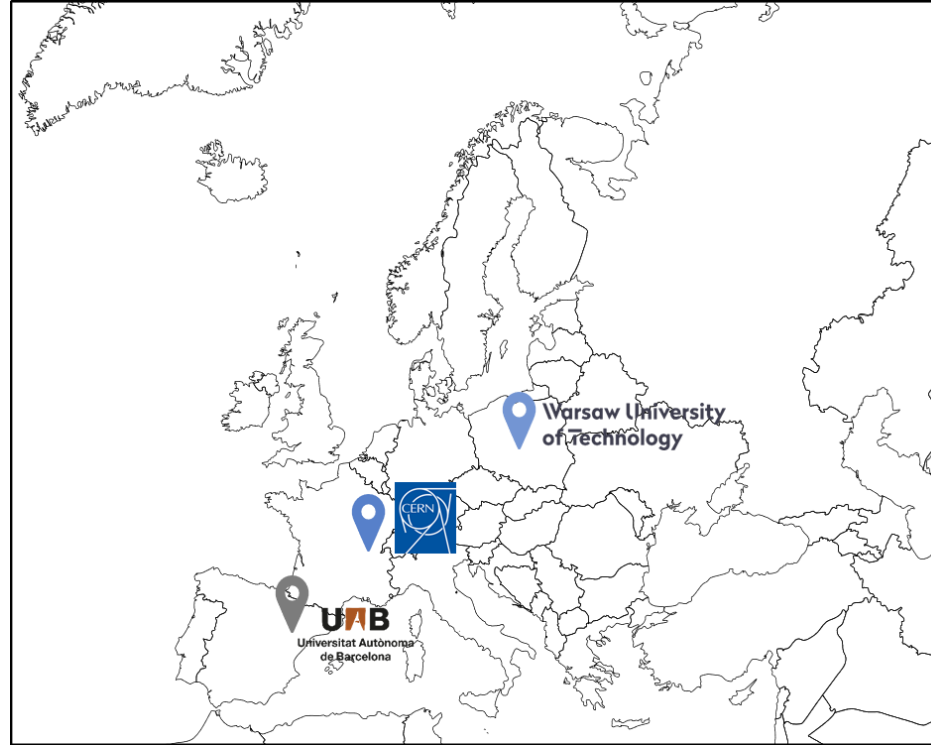
Hobby:

- Photography
- Hiking
- Sailing



rotron.pl

Aleksandra (Ola) Bartkowska



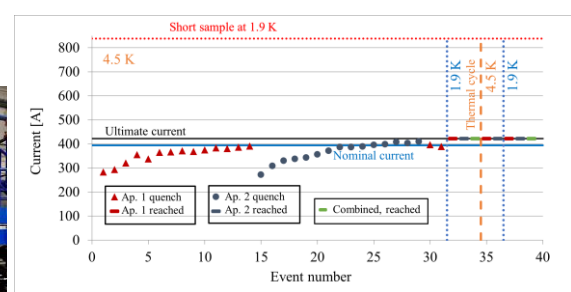
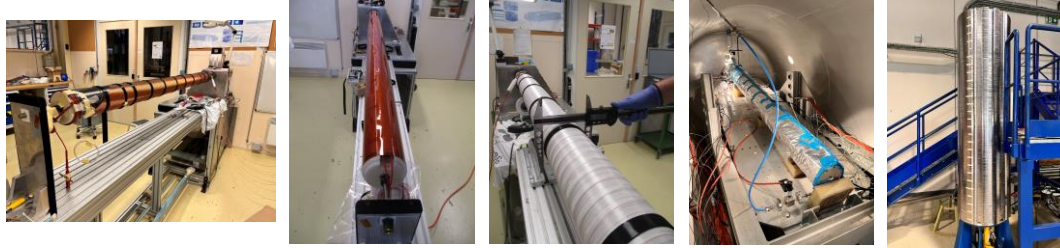
10 μ m
EHT = 5.00 kV
WD = 6.3 mm
Signal A = AsE
Sample ID = Virgin_MOXF_
Date: 3 Oct 2023
Mag = 1.00 K X
Aleksandra Bartkowska
EN

**Fellow at CERN,
TE-MS-C-SMT**

Veronica Ilardi
One slide – One minute

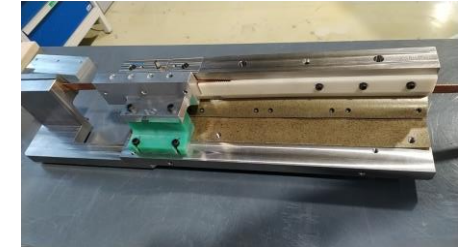
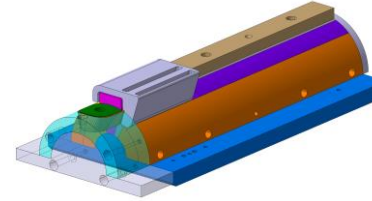
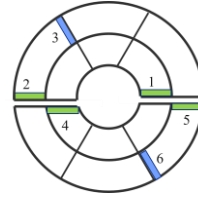
**Outdoor sports
Travelling
Taking pictures**

- HL-LHC series production of MCBRD magnets

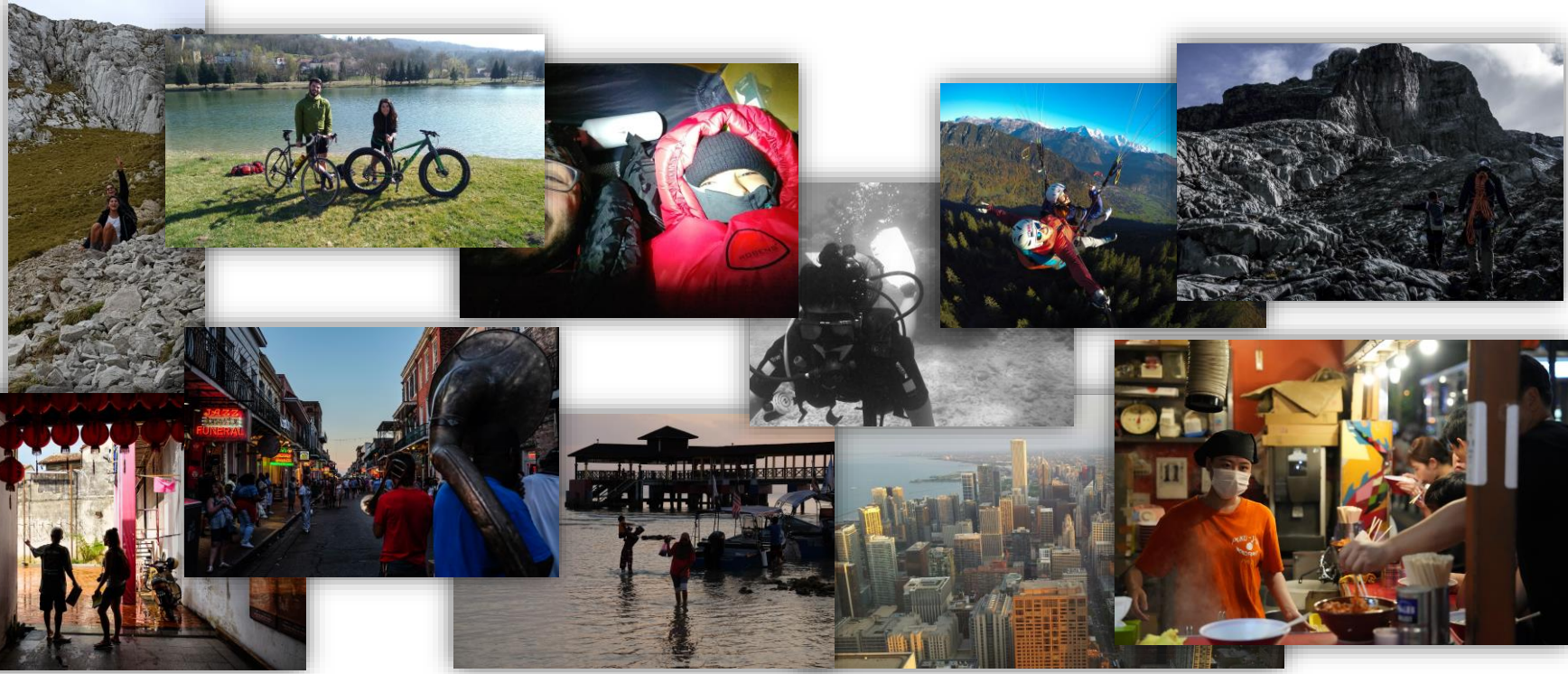


Courtesy E. Todesco

- 12 T splices



- Computation for a novel mirror test station (High Field Magnets project)



Students

- Sumit Kumar Chand
- Carl Jaermyr Eriksson
- Sumera Yamin
- Gianluca Vernassa
- Delphine Gerard
- Carmen Abad Cabrera



Sumit Kumar Chand

Research Scholar

Cryogenic Engg. Centre

**Indian Institute of Technology,
Kharagpur, India**

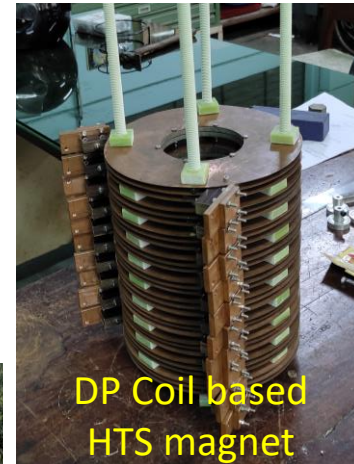
Email: skchand321@gmail.com

- ❖ **B.Tech:** Mechanical Engg., IGIT Sarang, Odisha, India (2010-14)
- ❖ **M.Tech:** Mechanical Engg., NIT Rourkela, Odisha, India (Specialization - Cryogenics and Vacuum Technology) (2017-19)
- ❖ **Ph.D. (Ongoing):** Cryogenic Engg. Centre, IIT Kharagpur

- ❖ Worked on: Resistive type Superconducting Fault Current Limiter (R-SFCL) module at LN_2 , in IUAC, New-Delhi, India.
- ❖ Currently Works : **B – I** Characterization of 2G-HTS tape and **HTS magnet** design for **Extremity MRI at 65 K.**

- ❖ Visited **KEK Japan (under SAKURA Science Programme)** (3rd Nov -10th Nov 2022)
- ❖ **First Tour to Europe (for CAS Course)**

- ❖ Yoga Practitioner
- ❖ Nature lover
- ❖ Sports: Cricket and Table Tennis
- ❖ Solo Traveler



DP Coil based HTS magnet



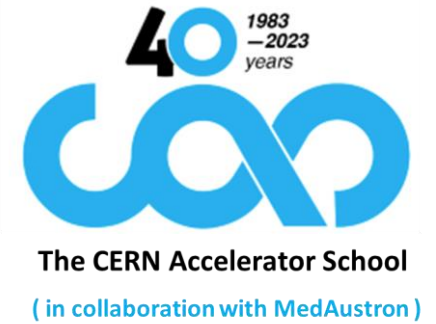
KEK, JAPAN



Yoga Pose



HTS Tape Characterization



The CERN Accelerator School
(in collaboration with MedAustron)



Carl



Sweden

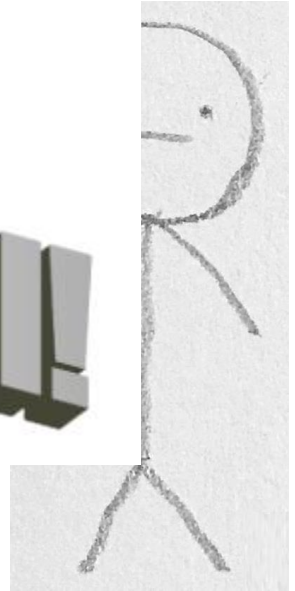
Hi

Nice to meet you all!

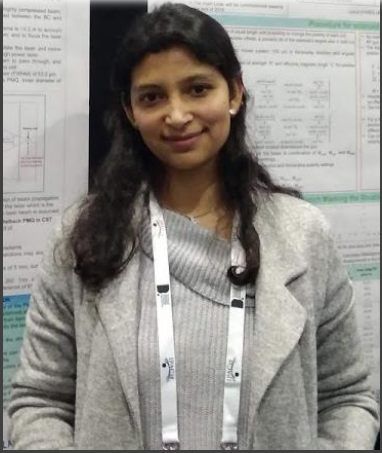
Bicycle



Chess



Dr. Sumera Yamin



PostDoc at Deutsches
Elektronen
Synchrotron-DESY
Notkestrasse 85, 22607,
Hamburg, Germany.

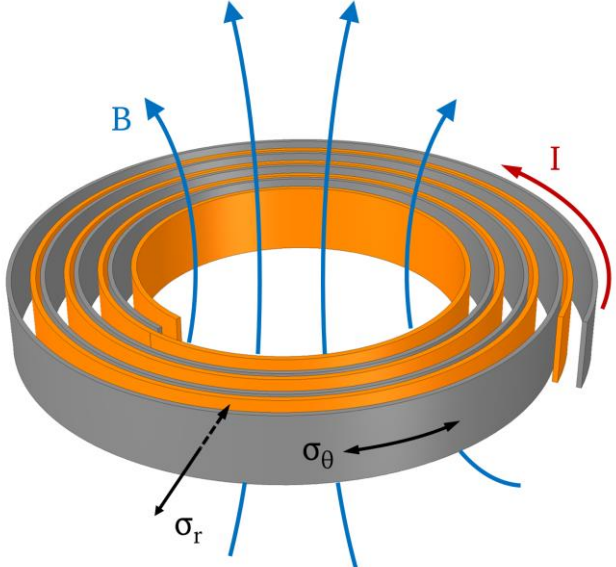
Professionally:

- Masters: Pakistan institute of engineering and applied sciences (PIEAS): “Drift-Alfven eigen modes in multicomponent inhomogeneous plasmas”.
- PhD from DESY and University of Hamburg: “Design and Optimization of final focus system for ARES linac”.
- Worked at PINSTECH and CERN
- At present: part of undulator group at DESY for design of magnets for PETRA IV
- Damping Wiggler design

Personally:

- I like to travel, read books or cooking.
- Couch potato on lazy days watching some good movie.

Gianluca Vernassa



Delphine GERARD TE/MSC/NCM

At CERN since 2001

Normal Conduction Magnet: LHC project

Beam Instrumentation: mainly for the PS Complex

Large Magnet Facilities: projet and maintenance for the big tooling

Now: back to Normal Conducting Magnet

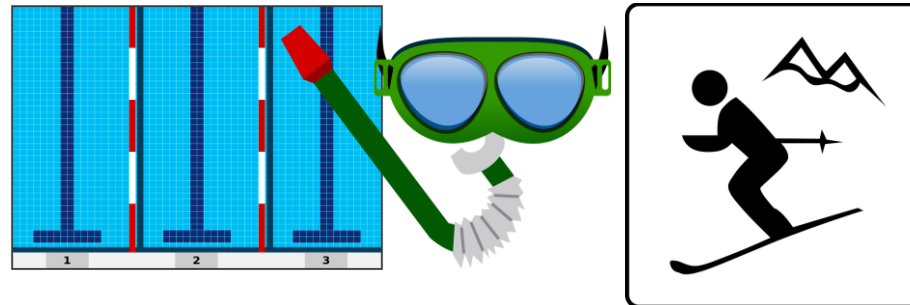
My cultural activities: visit museums, go to the theater, read BD (my favorite BD author: Boucq),....



My origin: Liege, Belgium



My sport activities: swimming, aquafit, diving (coming back soon) and skiing (coming soon with the winter)



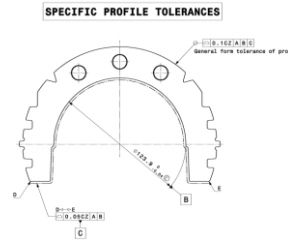
Carmen Abad

Mechanical engineer in superconducting magnets at CERN

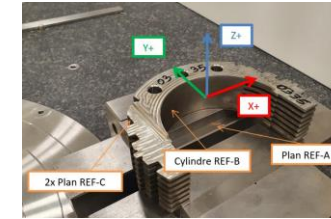


Assembly and test of a Nb3Sn Dipole

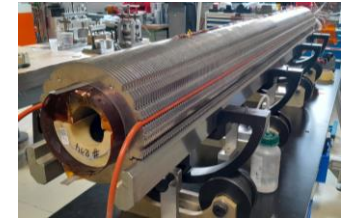
DESIGN



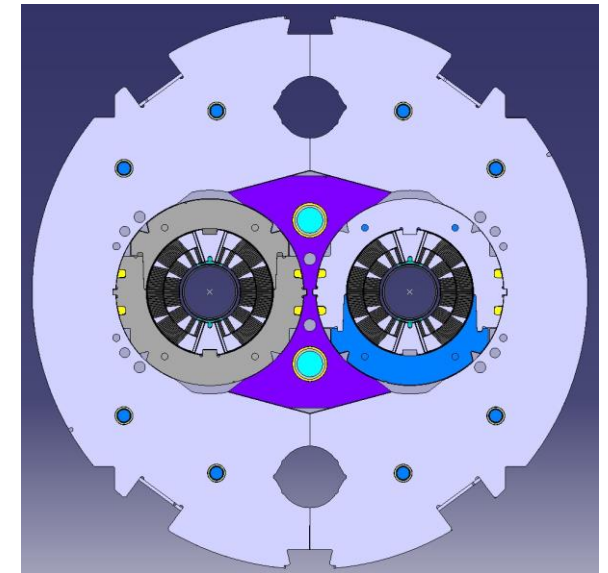
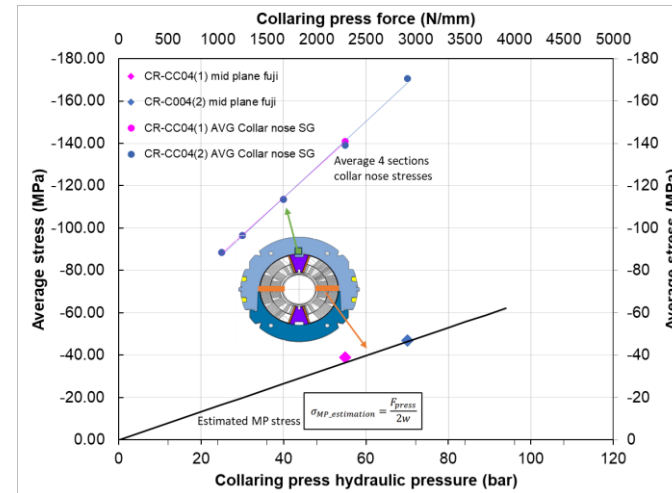
FABRICATION AND CONTROL



ASSEMBLY AND TEST



MECHANICAL MEASUREMENTS ANALYSIS



Students

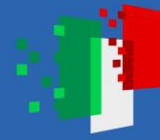
- Massimiliano Cannavò
- Vera Korchevnyuk
- Filip Malinowski
- Rasha Abukeshek
- Raul Key
- Rebecca Riccioli



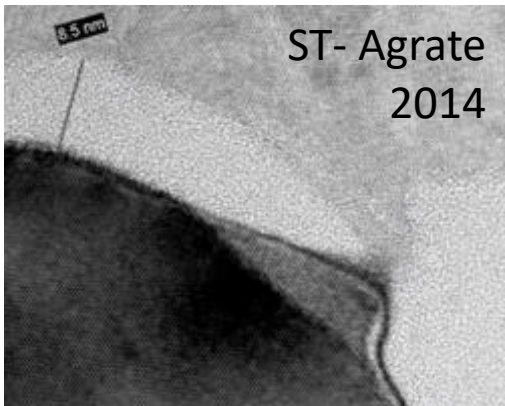
Finanziato
dall'Unione europea
NextGenerationEU



Ministero
dell'Università
e della Ricerca



Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA



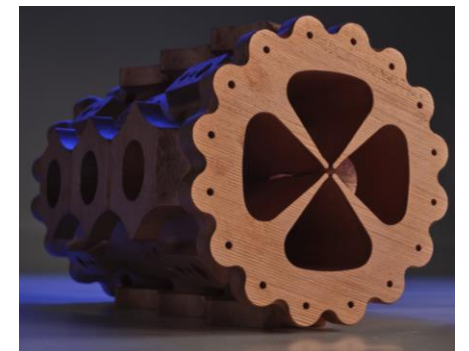
Defect on transistor after H2 annealing process (Credit M. Cannavò)



Coelux® 45 HC (Credit Coelux®)



Blubrake® ABS Gen2 (Credit BluBrake)
Stromer® ST5 (Credit Stromer)



RFQ made by AM technology.
(Credit CERN)

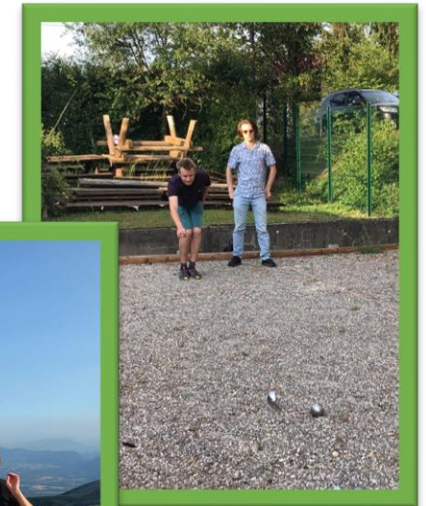
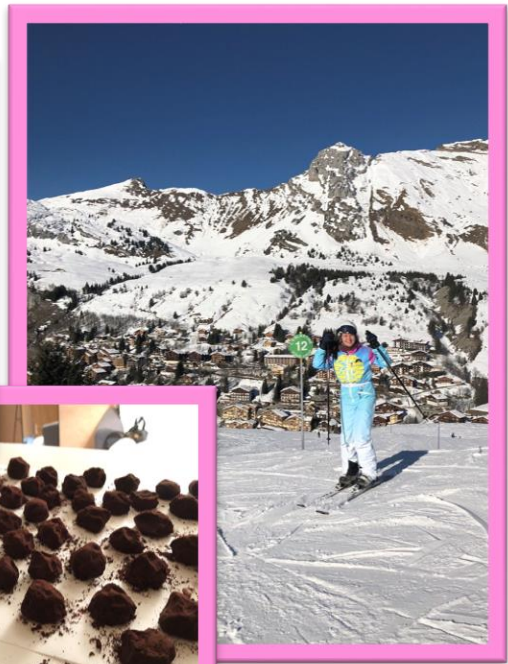
LASA – UNIMI
2023 – 2025 (and more?)



Vera KORCHEVNYUK

RU, PT, DE, FR, CH

- PhD student at CERN
- Resistive magnets
- Working on the design of a magnet for a FLASH-RT facility
- 3 months in PSI



Filip Malinowski



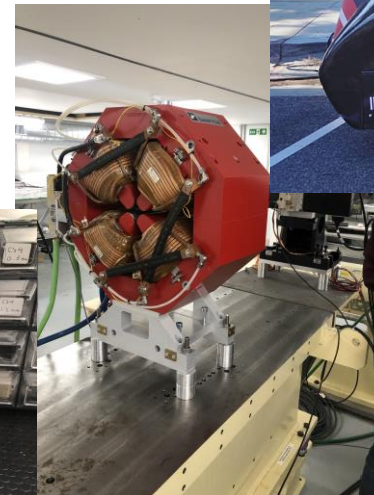
THE UNIVERSITY
of EDINBURGH

Magnet Engineer at Diamond Light Source

Studied Electrical and Mechanical Engineering

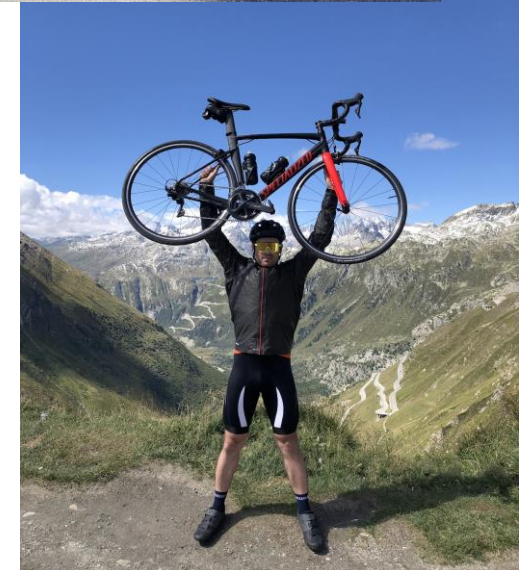
I work with injection magnets and everything transient

Septa, Kickers, Fast Correctors etc.



Fun Facts:

- I'm from southern Poland
- I really like cycling
- I read a lot of sci-fi
- I once built a Halbach wheel magnetic propulsion system
- As a hobby I am building an audio amplifier with 100-year-old vacuum tubes



RASHA ABUKESHEK



Present
IJCLab
2nd year PhD student

2022
Paris-Saclay University
M2 Grands Instruments

2021
An-Najah University
Bachelor in Physics



Thesis

Lattice design and beam optics
optimization of the PERLE facility



Learning French

Interpretation of my doctoral work
In French!!

Raúl Key Sánchez

01. Born

Lanzarote (Canary Islands)

02. Background

Mechanical Engineer

03. Interests

Motorsports

04. Hobbies

Sports

05. Contact

raul.key@cern.ch



Rebecca Riccioli

Born in Bologna (Italy)...



Rebecca Riccioli



Born in Bologna (Italy)...



Ragù !!!



Rebecca Riccioli



Born in Bologna (Italy)...



Ragù !!!



...Alma Mater Studiorum
(University of Bologna)



...Engineering



Rebecca Riccioli

Born in Bologna (Italy)...



...Alma Mater Studiorum
(University of Bologna)



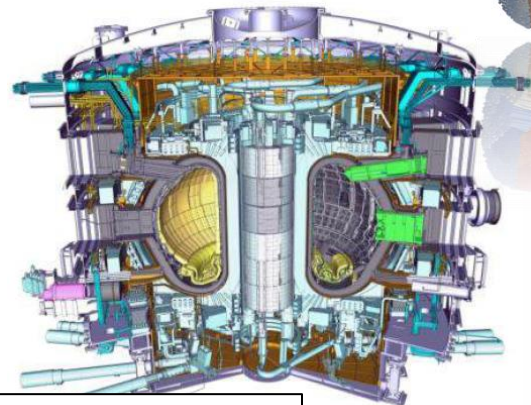
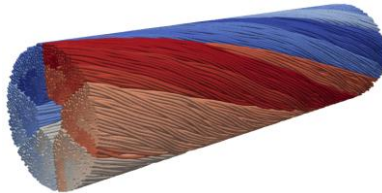
Ragù !!!



...Engineering



Ph.D. in solid mechanics
applied to fusion cables...



ITER tokamak



Rebecca Riccioli

Born in Bologna (Italy)...



...Alma Mater Studiorum
(University of Bologna)



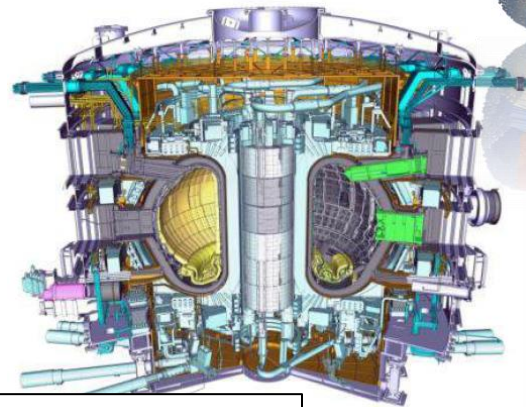
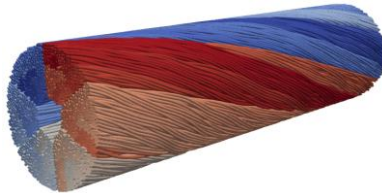
Ragù !!!



...Engineering



Ph.D. in solid mechanics
applied to fusion cables...



ITER tokamak

...In Provence
(France)



Rebecca Riccioli

Born in Bologna (Italy)...



...Alma Mater Studiorum
(University of Bologna)



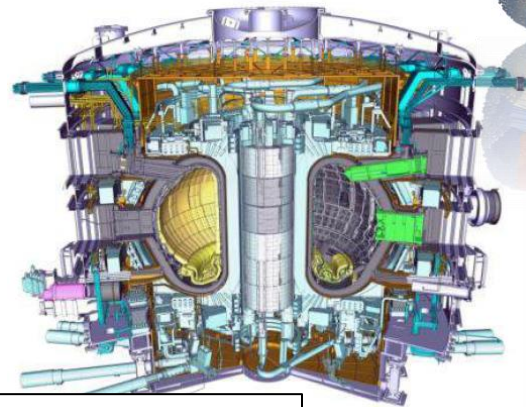
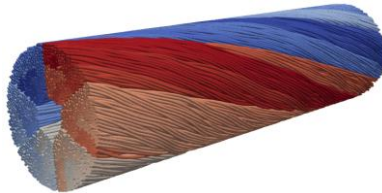
Ragù !!!



...Engineering



Ph.D. in solid mechanics
applied to fusion cables...



ITER tokamak

...In Provence
(France)



Helicopter
rescue

Post-doc on magnet design for accelerators...



Born in Bologna (Italy)...



Ragù !!!



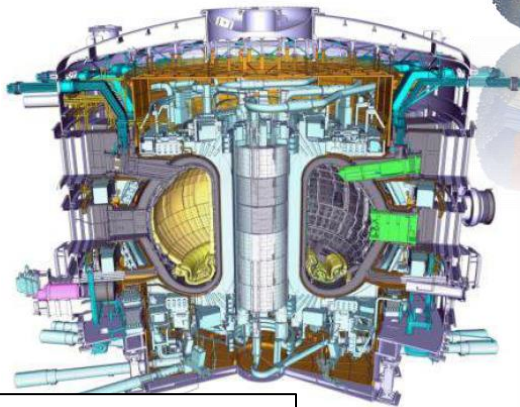
...Alma Mater Studiorum
(University of Bologna)



...Engineering



Ph.D. in solid mechanics applied to fusion cables...



ITER tokamak

...In Provence
(France)



**Helicopter
rescue**

Post-doc on magnet design for accelerators...

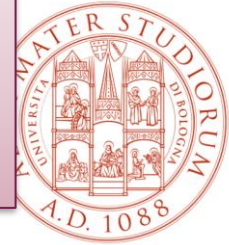


Born in Bologna (Italy)...

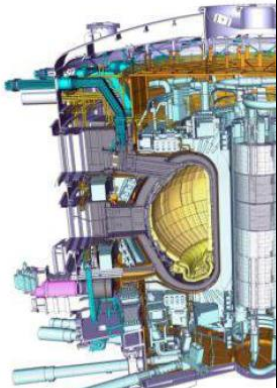


...Alma Mater Studiorum (University of Bologna)

Was ist das ????



Ph.D. in solid m...
applied to fusio...



ITER tokamak



...Engineering



Helicopter rescue



Students

- Ronan Olivier
- Lucia Sabbatini
- Luke Von Freeden
- Ignacio Aviles Santillana
- Lucie Baudin
- Joanna Kuczynska

Ronan OLIVIER

Bagpipes player and maker





Lucia Sabbatini

INFN-LNF

ONCE UPON A TIME...

- An antarctic astronomer



...NOWADAYS

- A family (crazy & funny)
- We love diving and snorkelling



- Playing with Lego



Garden

- ...The Boss



Luke von Freeden

- Electromech at Southampton
- Electrical machine designer at AVID
 - Cooling system, Rimac
 - Active aerodynamics, GM T50
 - WEG pump, Scania
- Staff at CERN, NCM
 - AD electron cooler
 - FCC-ee booster magnets



ONE SLIDE, ONE MINUTE

FOOTBALL
DJ'ING





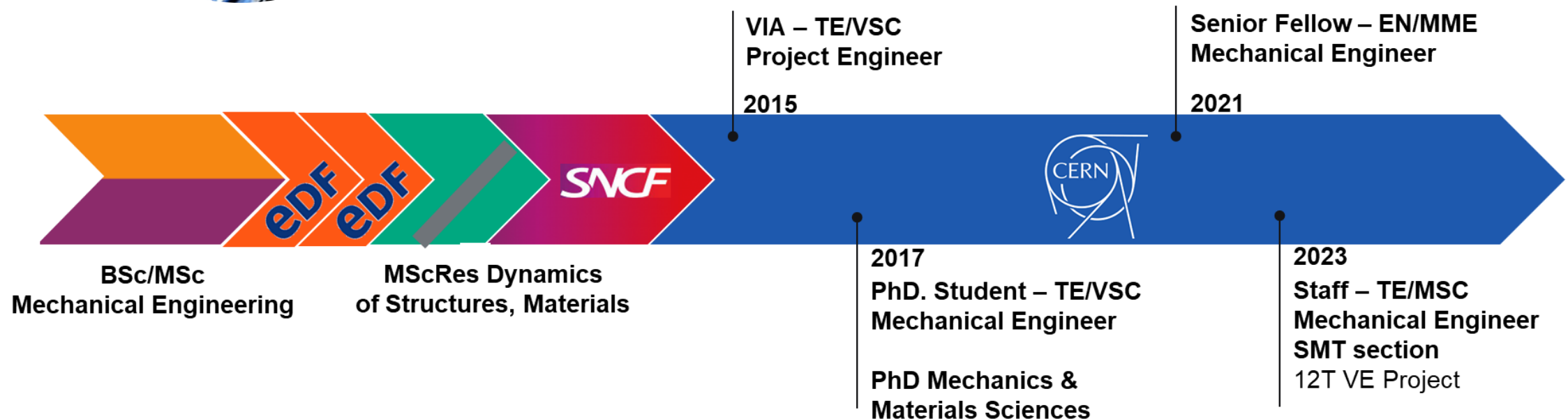
Lucie BAUDIN

33 years old

Mechanical engineer at CERN

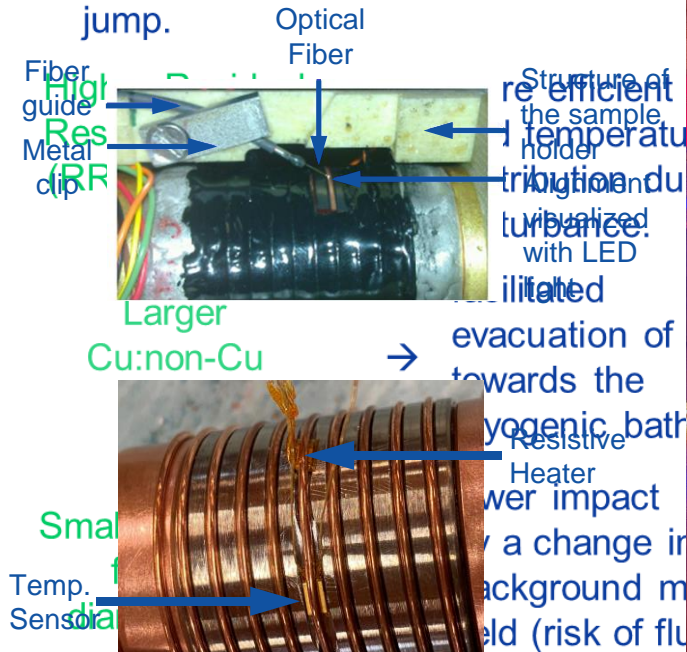
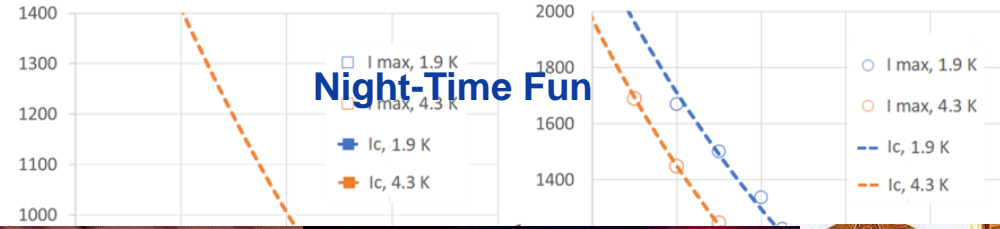
French, grow up in Savoie

In my free time, I like travels, outdoor activities and sports



Magneto-thermal instabilities in Nb₃Sn conductors

- Instabilities in superconducting magnets can result in **Daytime Failure** or **Night-Time Fun**.
- A superconductor is thermo-magnetically unstable if a perturbation will cause a finite change in the magnetic distribution in the superconductor – jump.



Summary: improving stability is usually at the cost of J_c .

- g fraction
- lower J_c
- lower J_c

Students

- Sergio Burioli
- Michela Bracco
- Nicola Sala
- Daniel Novelli

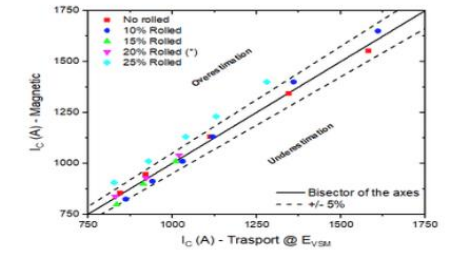
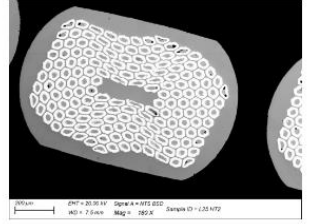
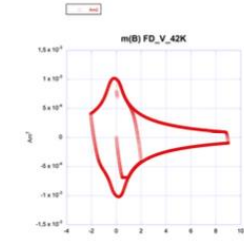
My Life equation...



Time

ABSTRACT

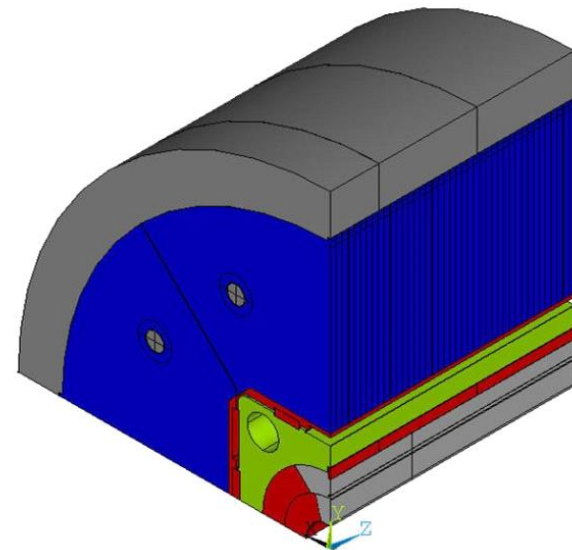
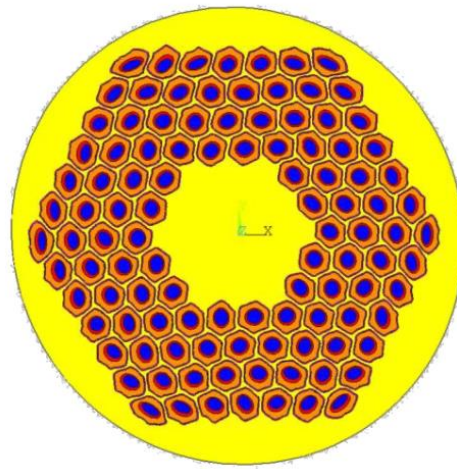
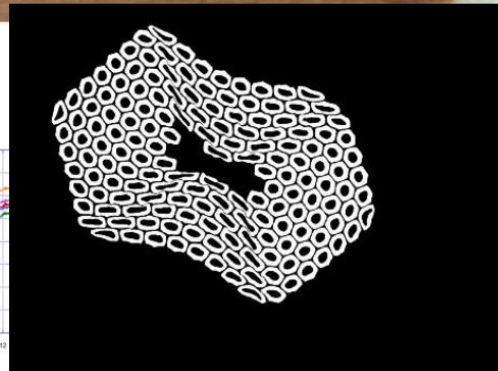
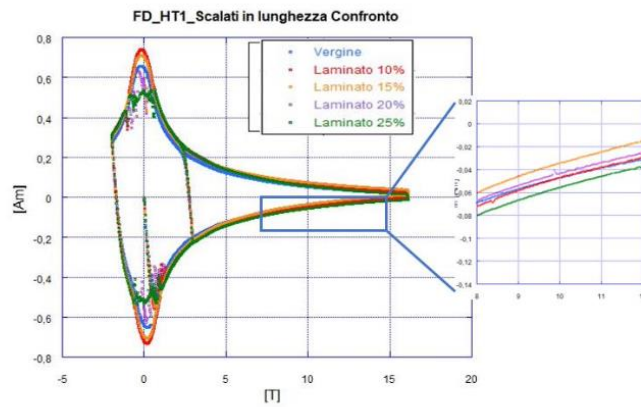
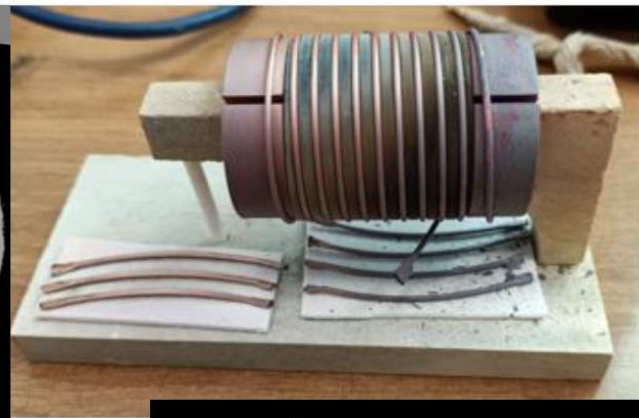
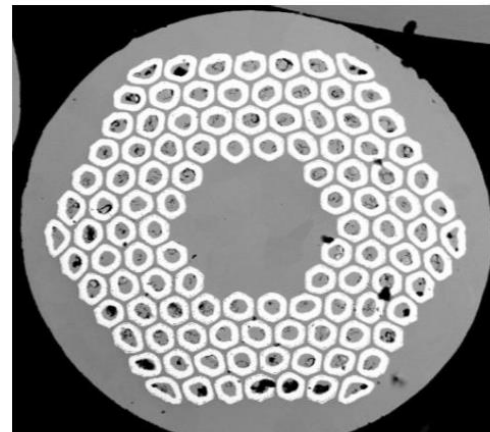
Analysis of STRain Affected CharacTeristics of brittle SC cables





What I am

What I do



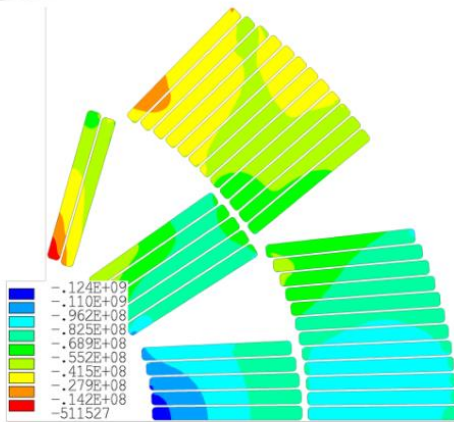
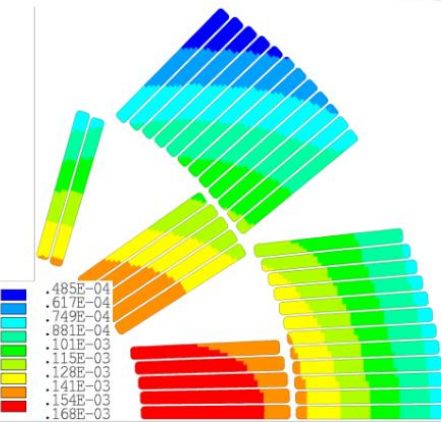
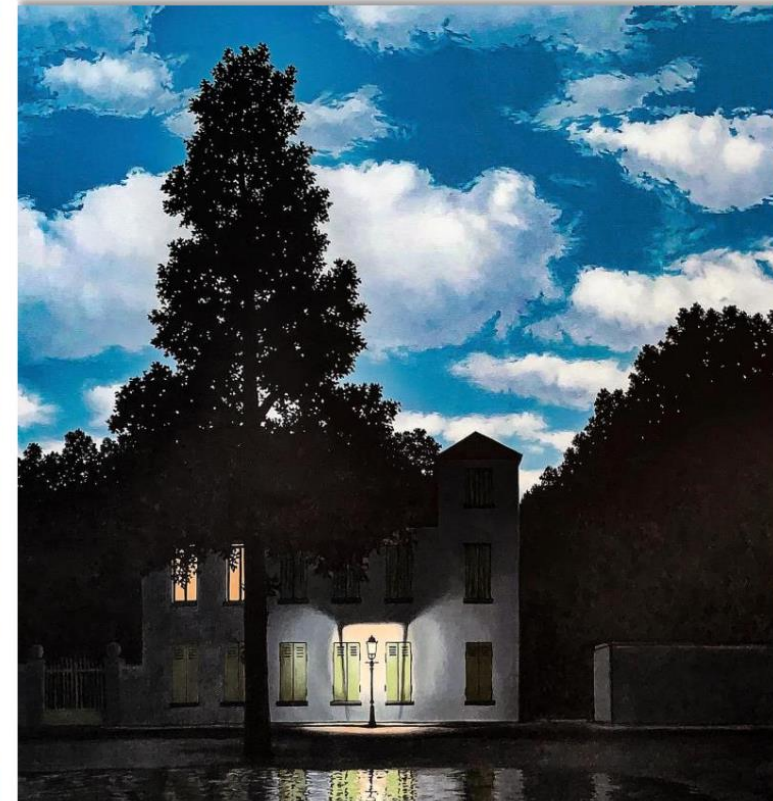
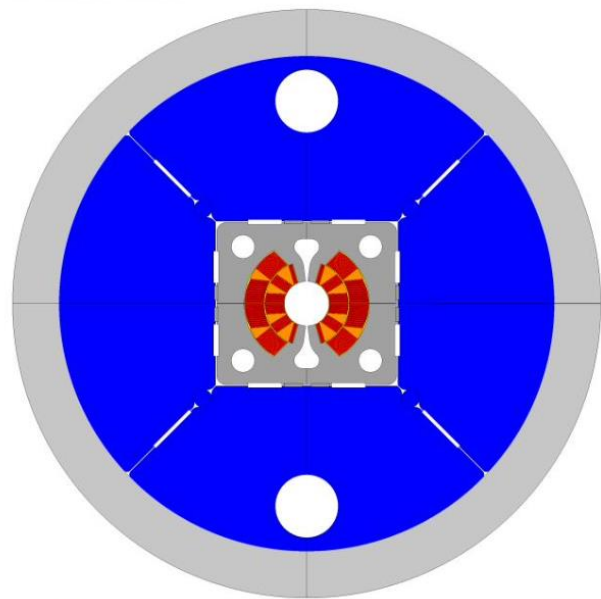
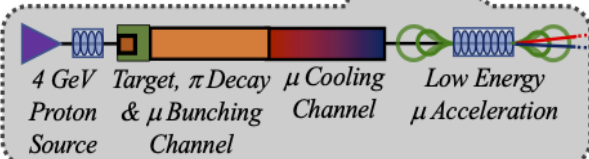
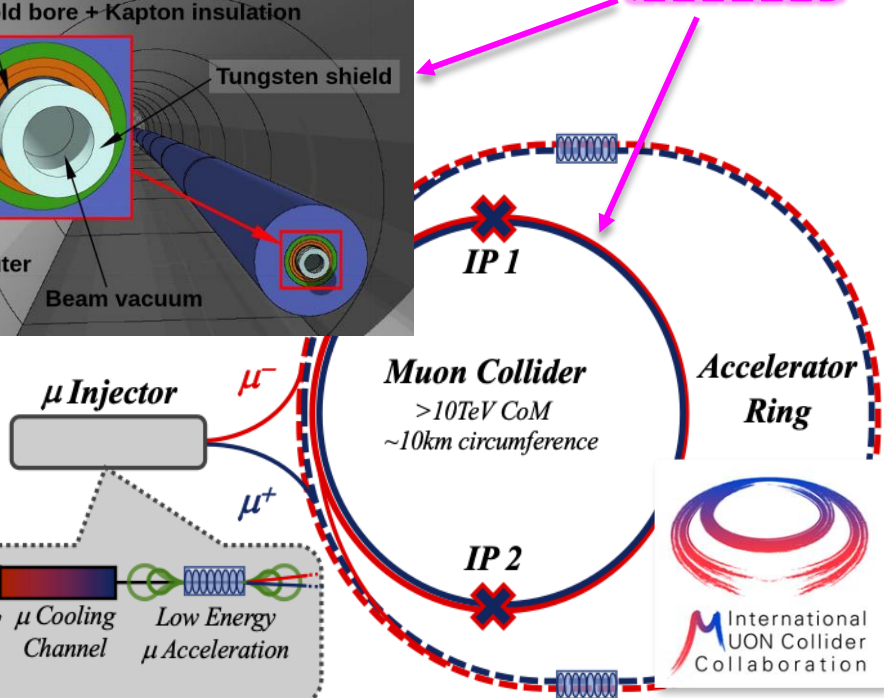
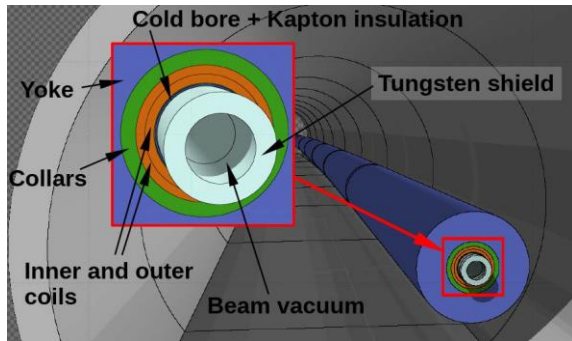
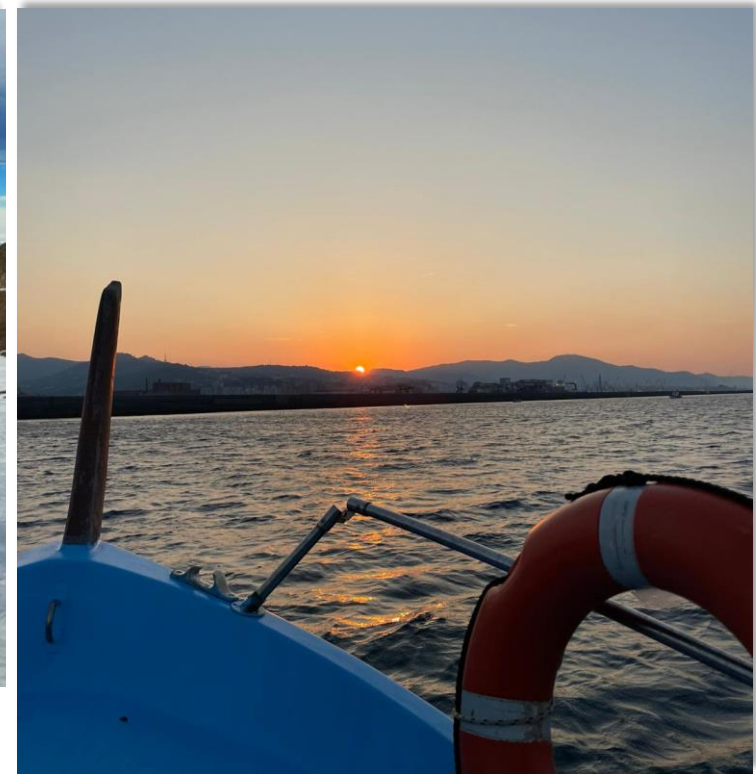
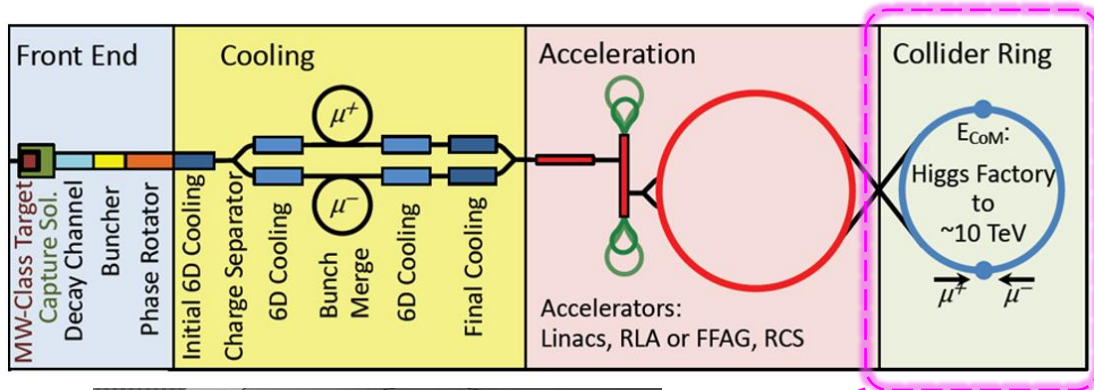


Figure 7: Differential displacement x-direction (cooling down – energization)

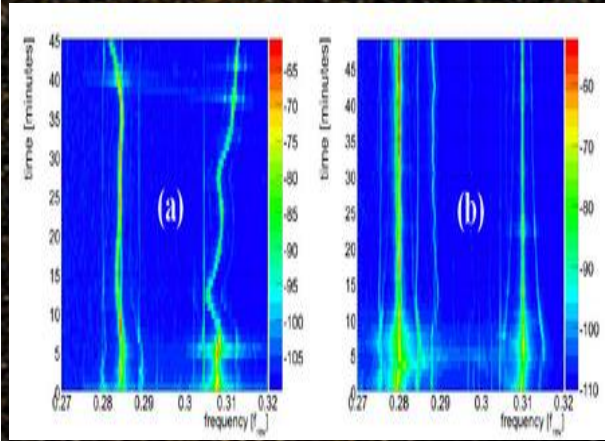
Figure 8: Azimuthal stress distribution



Lecturers

- Hermann Schmickler
- Fernando Toral
- Melvin Liebsch
- Franco Julio Mangiarotti

PhD in Particle Physics
1986, Then @ CERN



Beam instrumentation

**Control Systems of
Accelerators**



CLIC study



Hermann Schickler,
Retired since July 2022 from CERN
Proud of having always

kept a good balance of life

MUSIC
Opeth

**FROM
HEAVY
(OPETH)
TO HEAVY
(WAGNER)**



HIFI-ELECTRONICS

**FOOD
&
DRINKS**



Teacher and director

Fernando Toral

At work....

- PhD Electrical Engineer (2001)
- Working at CIEMAT since 1996
- Head of Accelerator Technology Unit
- Main topics: superconducting magnets, permanent magnets, warm RF cavities

My favourite hobbies... ...hiking with my dog



And... magnet rider!

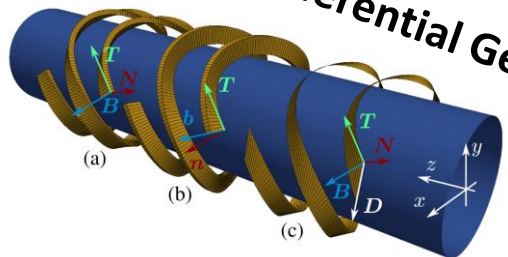


ORCID

gitlab

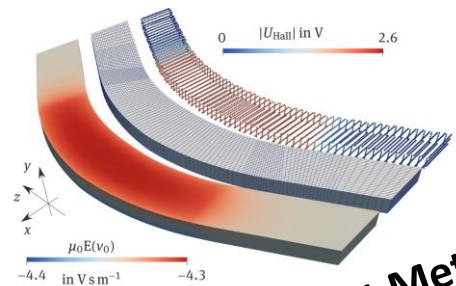


Differential Geomety



HC CERN
HC St. Cergue
HC INTEC

Magnetic measurements



Scientific Carrer

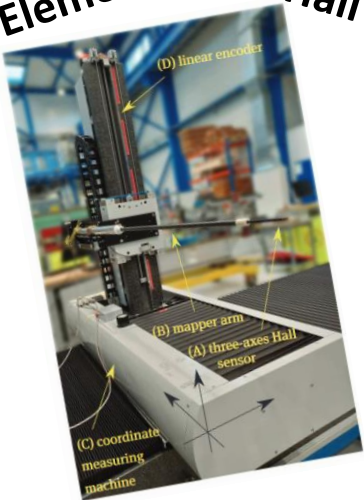
Ice Hockey

Family



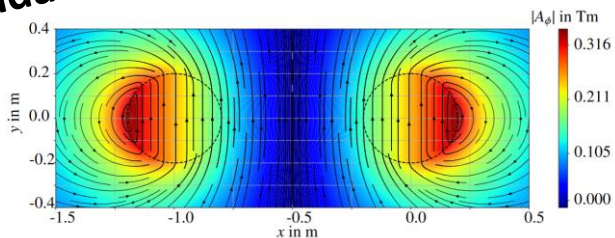
Boundary Element Methods

Hall Sensors



TE-MSC-TM

Toroidal harmonics





Franco Mangiarotti (CERN)

CAS Team

- Frank Tecker
- Christine Vollinger
- Delphine Rivoiron
- Maria Filippova
- Noemi Caraban Gonzalez



Frank Tecker

CAS Director
Accelerator Physicist
Fermilab, CERN
LEP, Recycler, CLIC/CTF3, PS

Teaching

Accelerator Physics
Linear Colliders



Enjoying life

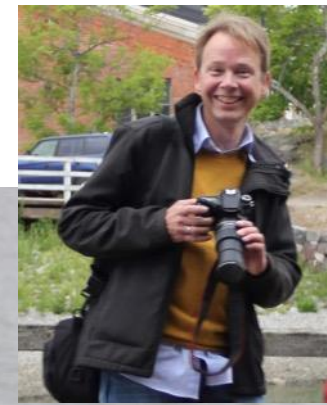
Travelling
Good food!
Nice wine, ...



more over a
glass of wine...



Sports Pool (Swimming and Billiard), Kicker,
Ski, Running, **Volleyball** (indoor, beach)



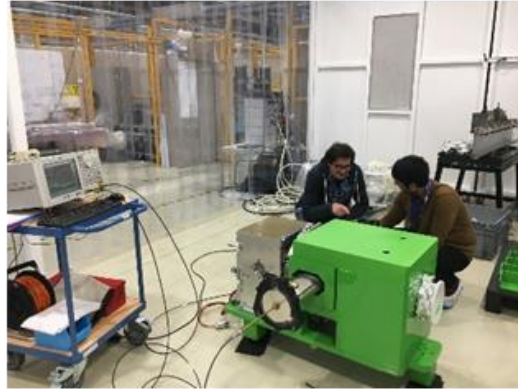
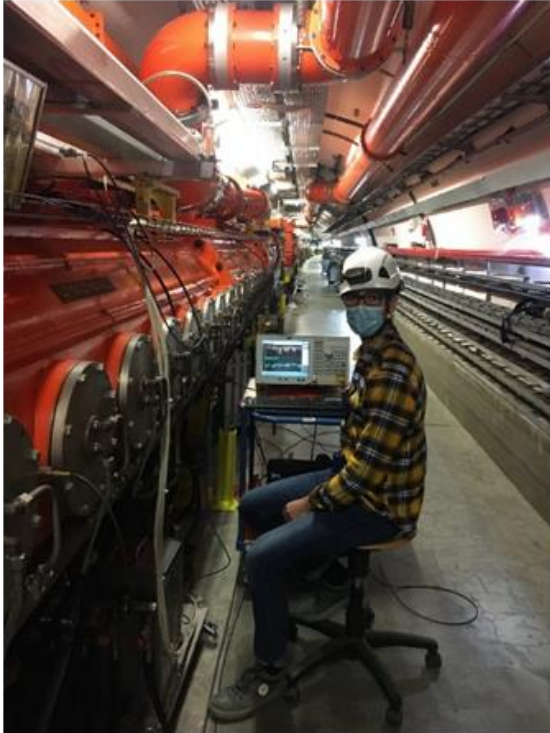
Taking pictures



Jaromir Ludwin

Christine Vollinger from CERN – RF Group

Working on beam coupling impedance mitigation for (almost) all CERN accelerators



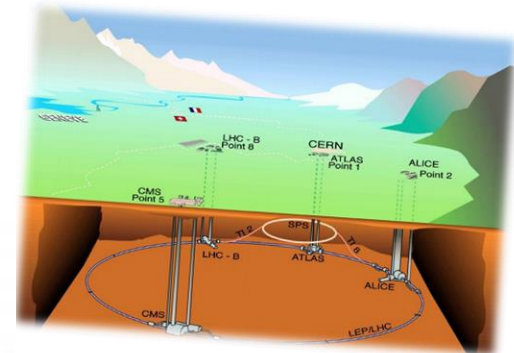
Outside CERN, I go sailing...



*Dolfin Delphine
RIVOIRON*



The CERN Accelerator School



 FRIENDLY
 PHONE CALLS
 LETTERS
 CALENDAR
Administrative Assistant TASKS
 RELIABLE
 PROFESSIONAL
 EMAILS
 REPORTS
 TYPE
 TRAVEL ARRANGEMENTS
 ASSIST



String 2 (LHC)



Maria Filippova



2008-2015: quality assurance assistant at CLIC study, responsible for RF components (splitters, bi-directional couplers, high-power loads): technical specifications, procurement, shipment, qualification check, document management.



Oct 2018 - present: administrative assistant of CAS

- registration and payment follow-up
- travel arrangement for lecturers
- certificates of participation and payment
- formatting of proceedings.

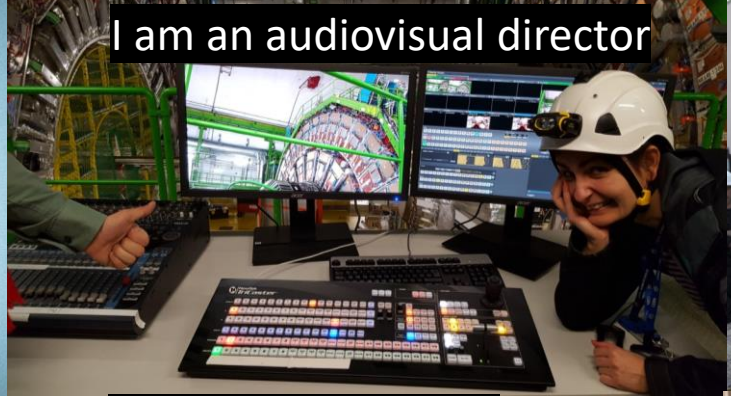


Morg...





Hello, I'm Noemi



I am an audiovisual director



Safety First!



I record



I edit, I publish



I won a Lovie Award for a music videoclip

We test their ground and I wonder...



I now work on the CASopedia project !!!!

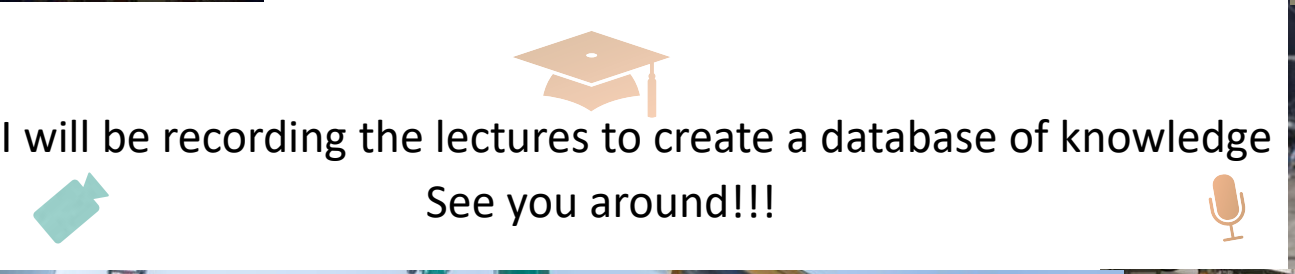
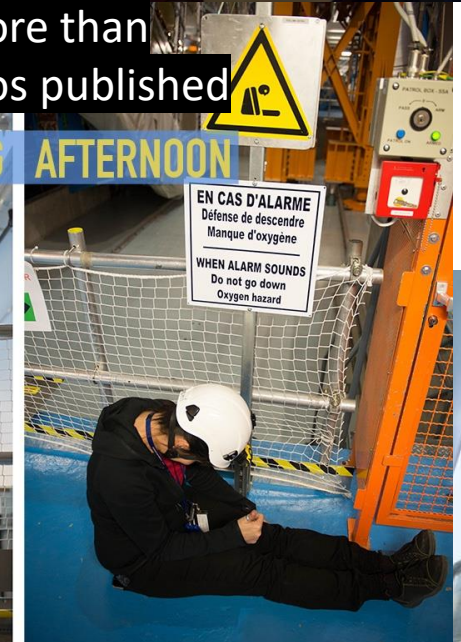


I produce content



I have more than 400 videos published

MORNING AFTERNOON



I will be recording the lectures to create a database of knowledge

See you around!!!



I've recorded outside



EVERYWHERE



and underground