



Romania@CERN – Educational programmes

Educational programmes @CERN



- **University students opportunities**
Student programmes (**SIP-RO 2023**)
PhD positions
- **High-school students opportunities:**
Beamline for Schools
CERN-Solvay Education Programme
Internships and National Programmes
(**HSSIP-RO 2021, 2024**)
- **CERN teacher programmes**
National, international and online programmes
(**online 2021, on site 2024**)



CERN Online Romanian Teacher Programme

19-23 April 2021

<https://indico.cern.ch/event/1025773/>

- over 250 participants

The screenshot displays the ATLAS software interface with a 3D visualization of the particle detector and a presentation slide. The slide is titled "Romania @ CERN" and features the following text:

Călin Alexa,
Dept. Fizica Particulelor Elementare, IFIN-HH
Școala Doctorală de Fizică, Universitatea București

The slide also includes a photograph of a conference room with a microphone and a sign that reads "ROMANIA".



HSSIP-RO 2021

7-20 November 2021

<https://indico.cern.ch/event/856138/>



- 23 pupils (age 16+) from all over the country
- + 3 teachers
- 2 weeks of
- lectures&discussions,
- working in research groups at CERN
- visits at experiments & more



Romanian Students Internship Programme SIP-RO 2023

19 November – 2 December 2023

<https://indico.cern.ch/event/1337923/>

- **12 students** from all over the country
- **2 weeks** of
 - lectures&discussions,
 - **visits at experiments & more** at CERN



SIP-RO 2023



Romanian High-School Students Internship Programme HSSIP-RO 2024

2 – 15 June 2024



<https://indico.cern.ch/event/1369306/>

- **24 students** from all over the country
+ 3 accompanying teachers
- **2 weeks of**
 - lectures&discussions,
 - workshops
 - visits at experiments & more at CERN





<https://www.ifa-mg.ro/cern/programul-cern-ro.php>

MINISTERUL CERCETĂRII,
INOVARII ȘI DIGITALIZĂRII



CERN Romanian HSSIP 2024



Finanțare: programul DUROCERN–
Descoperă Universul cu Romania@CERN

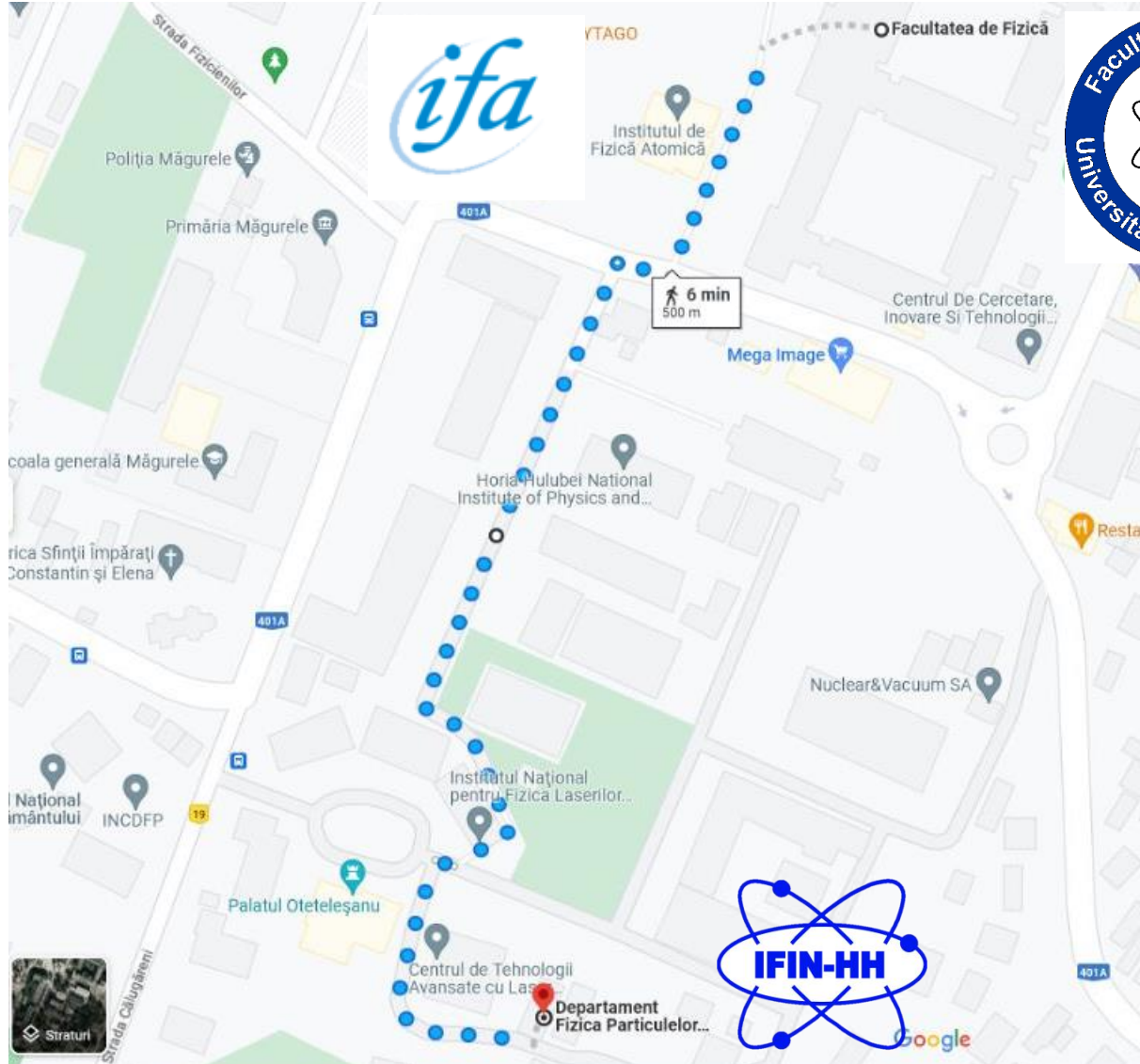
2-15 iunie 2024

Facultatea de Fizică, Universitatea din București

Institutul Național de Cercetare-Dezvoltare
pentru Fizică și Inginerie Nucleară - Horia
Hulubei (IFIN-HH)

Echipa din România:

Călin ALEXA (calin.alex@cern.ch), *IFIN-HH*
Roxana ZUS (roxana.zus@g.unibuc.ro), *FF-UB*
Marina ROTARU, *IFIN-HH*
Alexandra TUDORACHE, *IFIN-HH*
Valentina TUDORACHE, *IFIN-HH*
Ioana DUMINICĂ, *FF-UB & IFIN-HH*
Mădălina BOCA, *FF-UB*
Andreea CROITORU, *FF-UB*
Mihaela PÂRVU, *FF-UB*
Oana RISTEA, *FF-UB*
Raluca Sibinescu, *UB*
Andreea Cârstea, *UB*
Cristina Melinte, *IFA*



edu@fizica.unibuc.ro

Train, educate and engage

- **Echipa la CERN (și din România):**

Sascha Schmeling, *CERN*

Sarah Zöchling, *CERN*

Roxana Zus, *UB*

Călin Alexa, *IFIN-HH*

Alexandra Tudorache, *IFIN-HH*

Valentina Tudorache, *IFIN-HH*

Ioana Duminică, *UB & IFIN-HH*



- **Echipa din România:**

Marina Rotaru, *IFIN-HH*

Raluca Sibinescu, *UB*

Andreea Cârstea, *UB*

Cristina Melinte, *IFA*

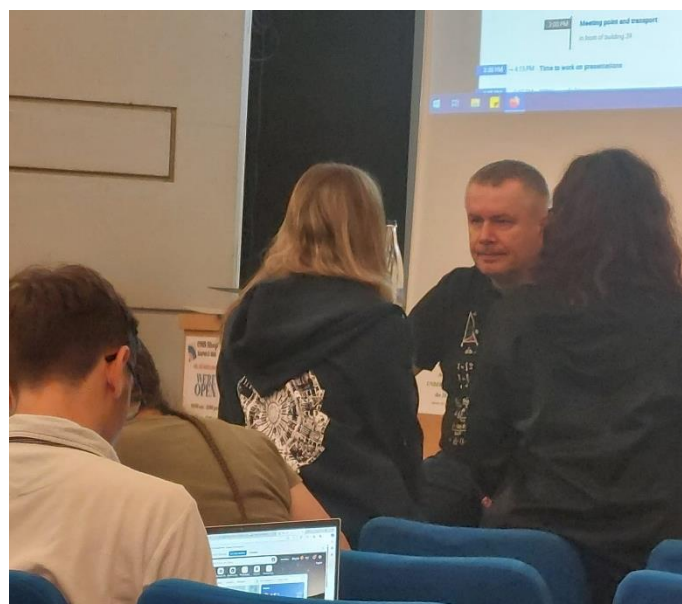


+ support from ministries, academics, researchers, administration

HSSIP-RO 2024

Invited lecturers

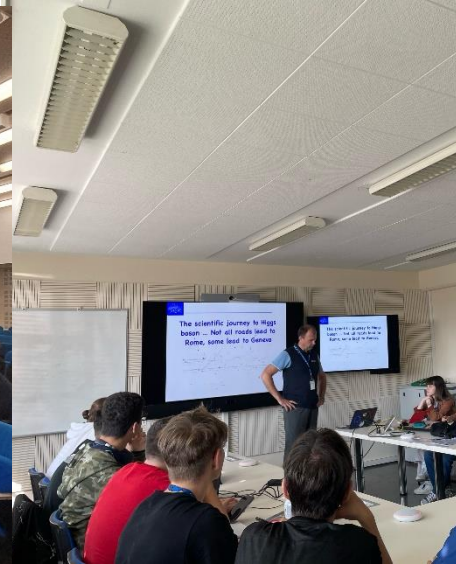
- Călin Alexa, Horia Hulubei National Institute for Physics and Nuclear Engineering
- Pascal Pralavorio, CPPM, Aix-Marseille Université, CNRS/IN2P3
- Jeff Wiener, CERN
- Roxana Zus, University of Bucharest



HSSIP-RO 2024

Invited lecturers

- **Andreas Guillermo Delannoy Sotomayor, University of Tennessee**
- **Szymon Kulis, CERN**
- **Tiberiu Drăgoiu, Babeş-Bolyai University Cluj-Napoca**



HSSIP-RO 2024

Visits and Exploring @CERN



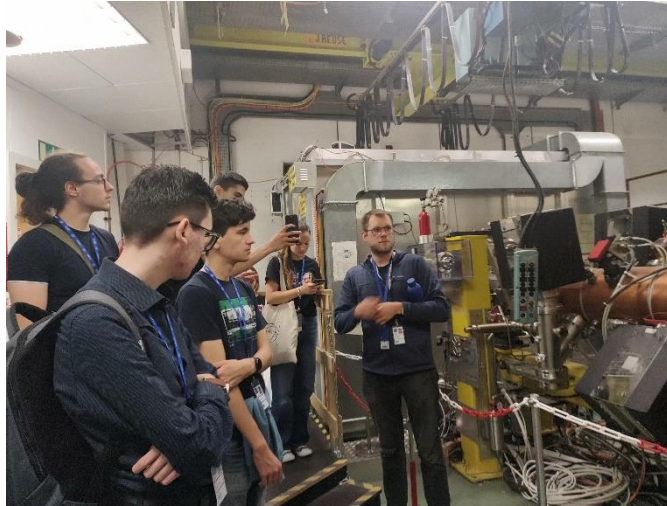
- Florentina Manolescu (CERN)
- Joni Pham (University of Melbourne)
- Julia Dancu (Imperial College)
- Merten Dahlkemper (CERN)
- Marcin Tadeusz Poblocki (CERN)



+ many other researchers

HSSIP-RO 2024

Visits @CERN



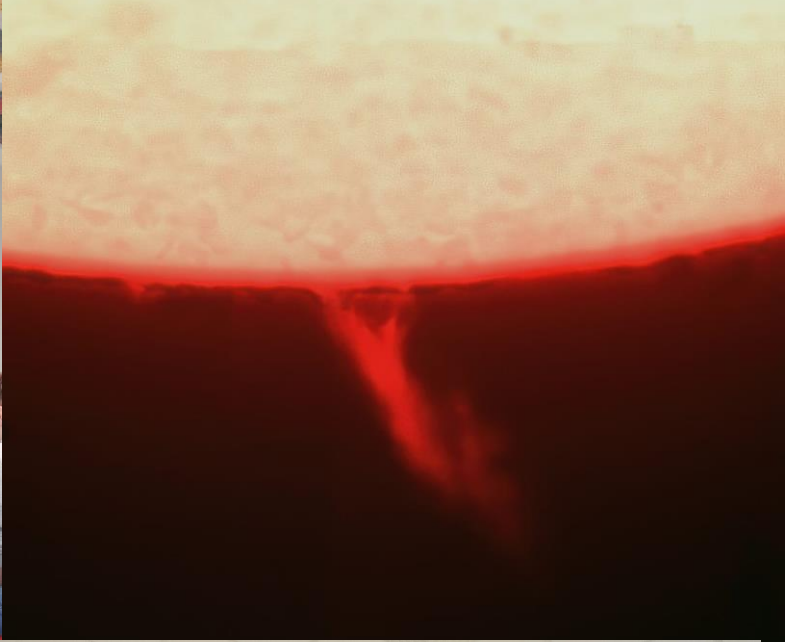
- **Liviu Vlasan** (CERN)
- **Mihai Patrascoiu** (CERN)
- **Vitali Batusov** (Joint Institute for Nuclear Research)
- **Piotr Konopka** (CERN)
- **Gabriel Popeneciu** (INCDTIM)
- **Cristian Pirghie** (IFIN-HH)
- **Tobias Patrick Treczoks** (Technische Universitaet Dresden)



+ many other researchers

HSSIP-RO 2024

Workshops @CERN





Exploring CERN & more





HSSIP-RO 2024

Exploring CERN & more



Exploring Geneva & more



Romanian Teachers Programme TCP 2024

9 – 14 iunie 2024

<https://indico.cern.ch/event/1329028/>

- **27 teachers** from all over the country
- **1 week of**
 - lectures&discussions,
 - workshop
 - **visits at experiments & more at CERN**



RO-TP 2024

Invited lecturers



- **Călin Alexa**, Horia Hulubei National Institute for Physics and Nuclear Engineering
- **Pascal Pralavorio**, CPPM, Aix-Marseille Université, CNRS/IN2P3
- **Jeff Wiener**, CERN
- **Roxana Zus**, University of Bucharest
- **Tiberiu Drăgoiu**, Babeş-Bolyai University Cluj-Napoca
- **Cătălin Agheorghiesei**, Alexandru Ioan Cuza University of Iași
- **Daniel Radu**, Alexandru Ioan Cuza University of Iași

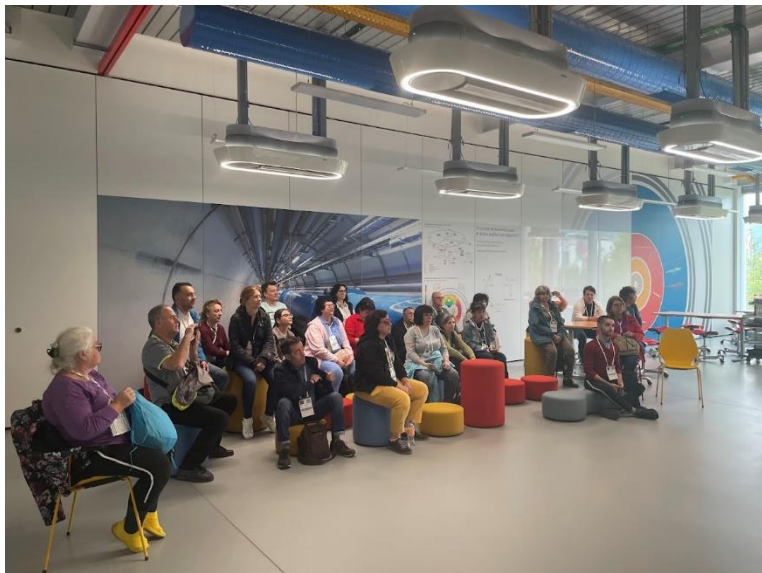


RO-TP 2024

Visits @CERN



RO-TP 2024 Workshop @CERN





International Particle
Physics Outreach Group

INTERNATIONAL



hands on particle physics

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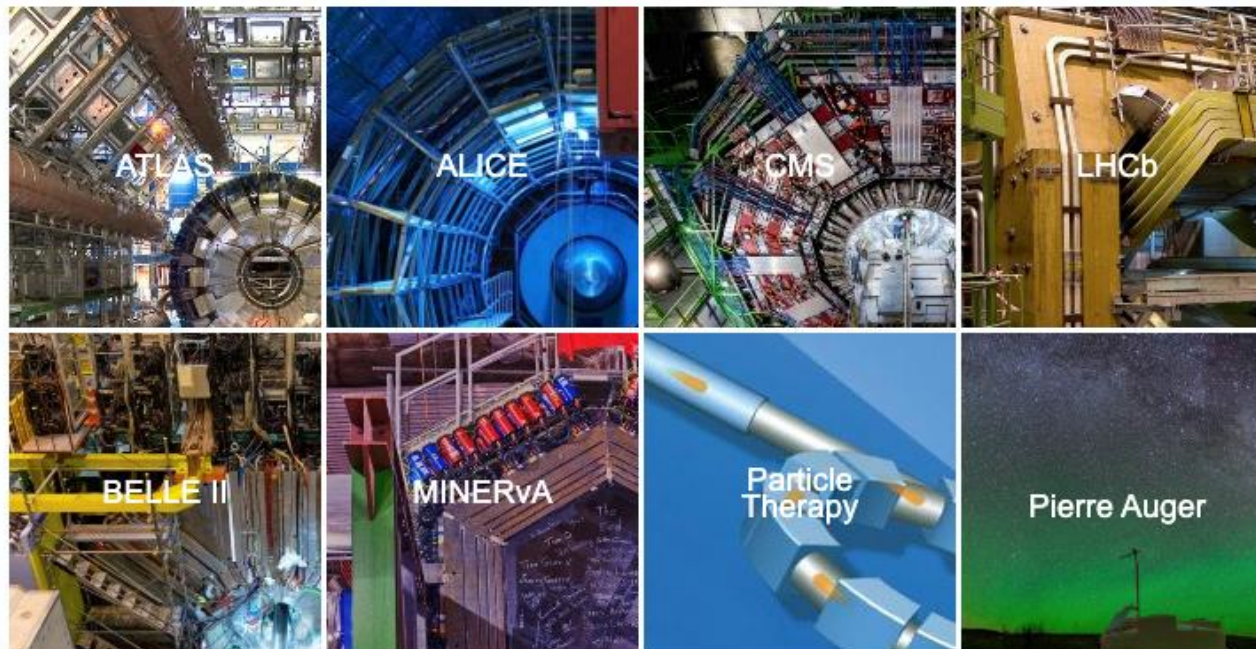
 Follow @physicsIMC



International Masterclasses

20th International Masterclasses 2024

<https://physicsmasterclasses.org/index.php>





- <https://physicsmasterclasses.org/>
- High school students come to a nearby university or research centres for one day in order to unravel the mysteries of particle physics (lectures from active scientists enabling the students to perform measurements on real data from particle physics experiments themselves). At the end of each day, like in an international research collaboration, the participants join in a video conference for discussion and combination of their results.)



- **Bucharest-Măgurele, Iași, Timișoara, Cluj-Napoca**



- **Bucharest-Măgurele, Suceava**

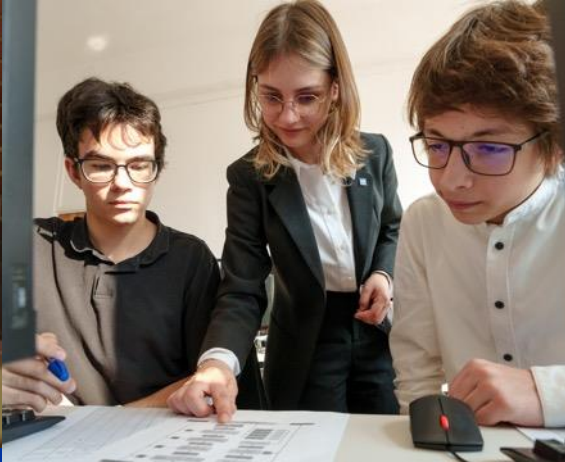
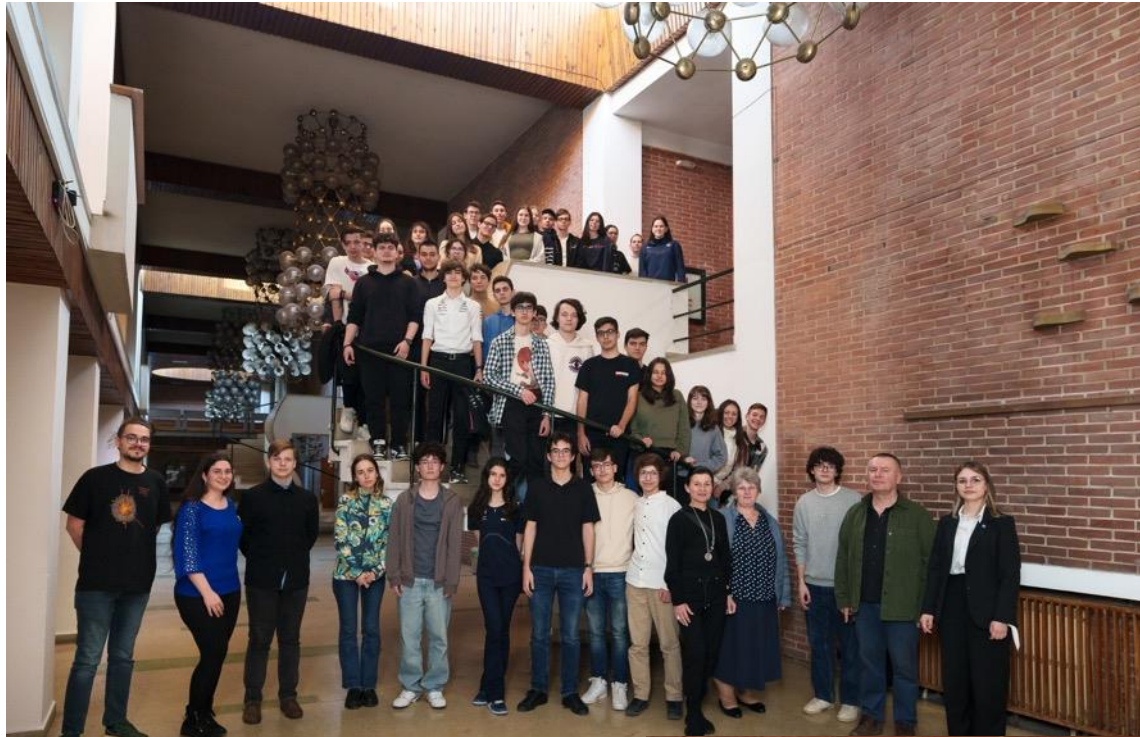
**„International Masterclasses ATLAS – W-Path” on 18th of March 2023
at University of Bucharest (Faculty of Physics) and online @CERN**



Sat 18.3.
VC 1
ATLAS W
Lisbon
Bucharest



**„International Masterclasses ATLAS – W-Path” on 9th of March 2024
at University of Bucharest (Faculty of Physics) with IFIN-HH (ATLAS group) and online @CERN**

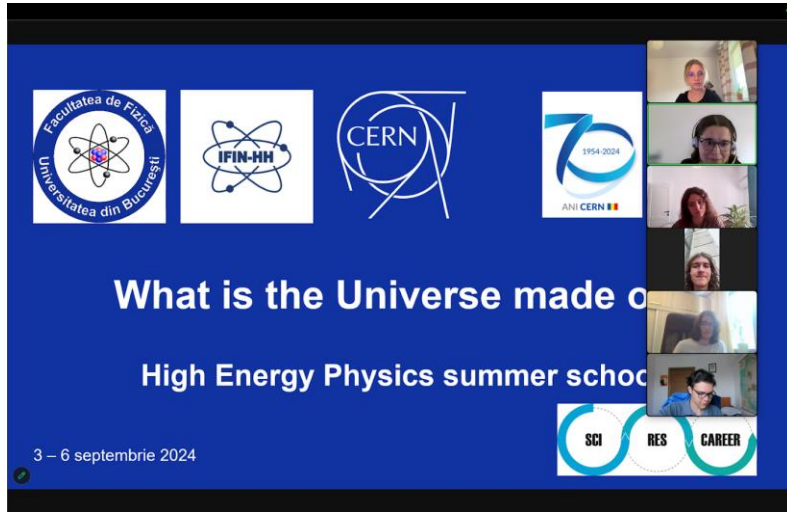


**„International Masterclasses ATLAS – Z-Path” on 23rd of March 2024
at University of Bucharest (Faculty of Physics) with IFIN-HH (ATLAS group) and online @CERN**



“What is the Universe made of?” High Energy Physics Summer School

3 – 6 September 2024



Facultatea de Fizică
Universitatea din București

IFIN-HH

CERN

70
1954-2024
ANI CERN

What is the Universe made of?

High Energy Physics summer school

3 – 6 septembrie 2024

SCI RES CAREER

<https://indico.cern.ch/event/1452724/>

- **24 students** from all over the country
 - lectures&discussions,
 - **virtual visits** at CERN
 - **Workshop & more**



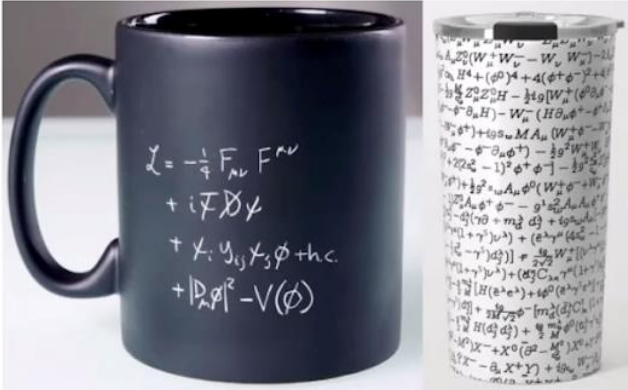
Lecturers

HEPP @ CERN — Saved to my Mac

Home Insert Draw Design Transitions Animations Slide Show Record Review View Acrobat

Introduction to high energy particle physics

Călin Alexa, Fizica Particulelor Elementare, IFIN-HH



ioana Duminica

ioana Duminica

Scotnitchi Sasha

Oliver Wagner

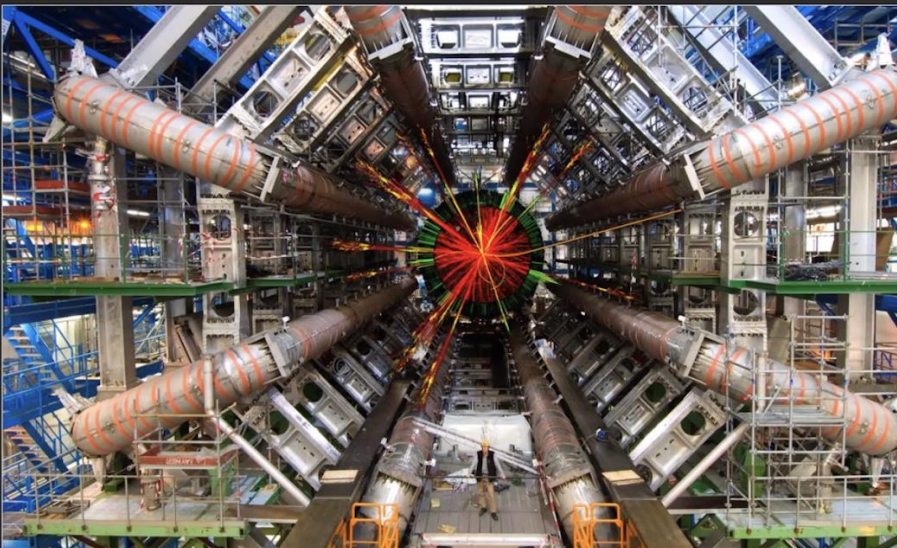
Andrei Puiu

Călin Alexa

Vladimir Nicolae

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Întrebări

- ? Din ce este constituită materia?
- ? Din ce este compus universul?
- ? Care este originea universului și cum a evoluat?
- ? De ce se comportă așa universul?
- ? Cum va evolua?
- ?

ioana Duminica

ioana Duminica

Scotnitchi Sasha

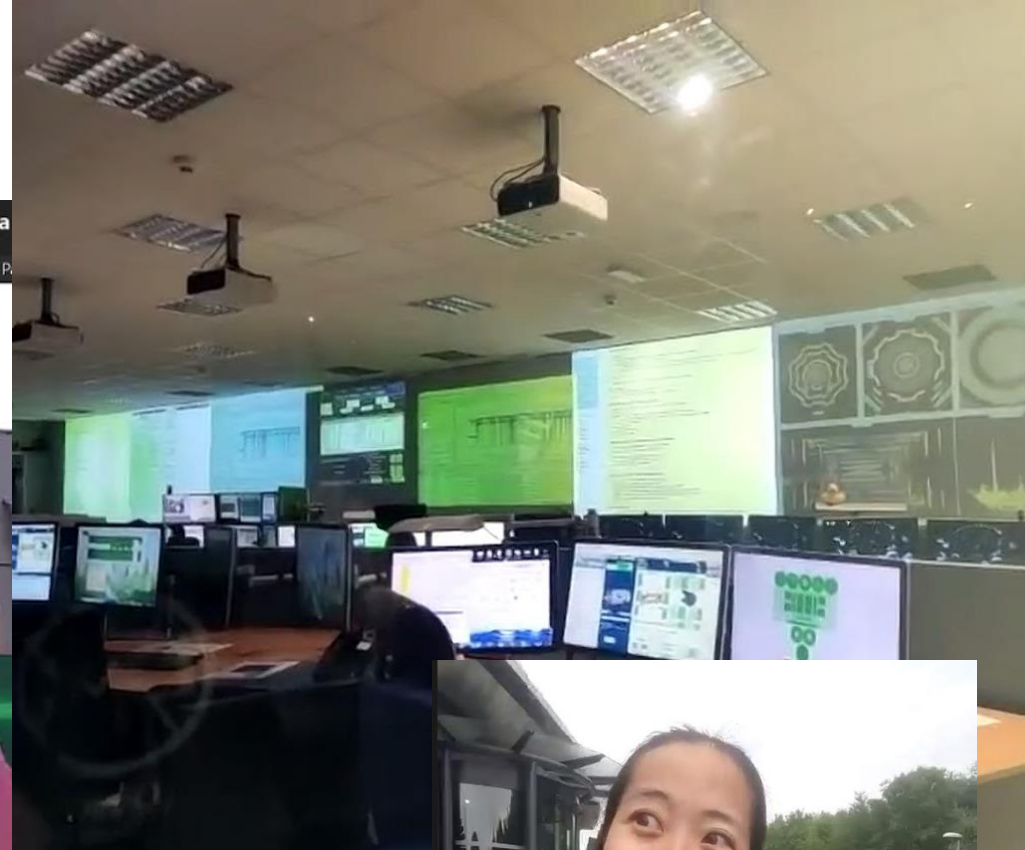
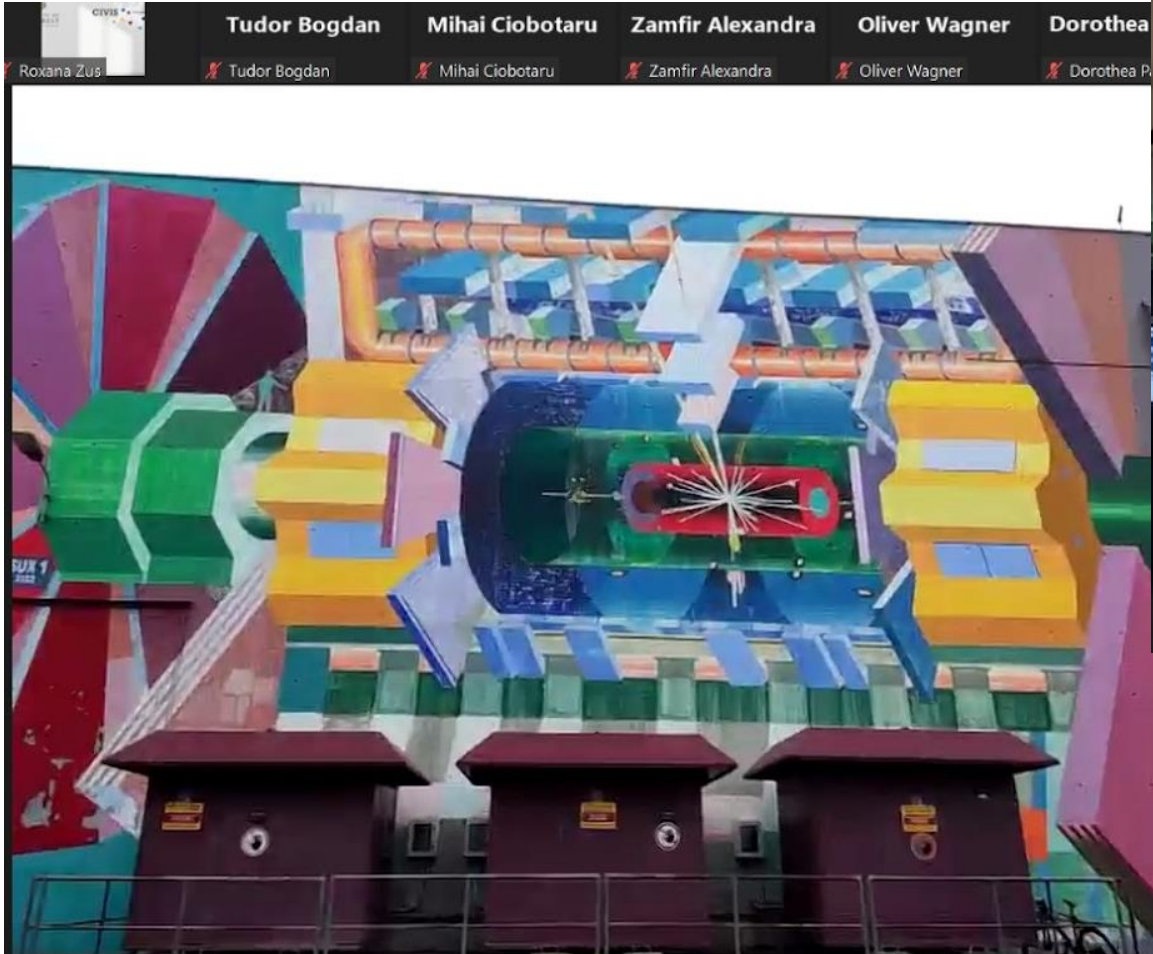
Sorin Ticlete

Roxana Zus

Roxana Zus

Mihai Ciobotaru

Live @CERN



- SS Scotnitchi Sasha
- S Sorin Ticlete
- TB Tudor Bogdan
- V Vladimir Nicolae
- ZA Zamfir Alexandra

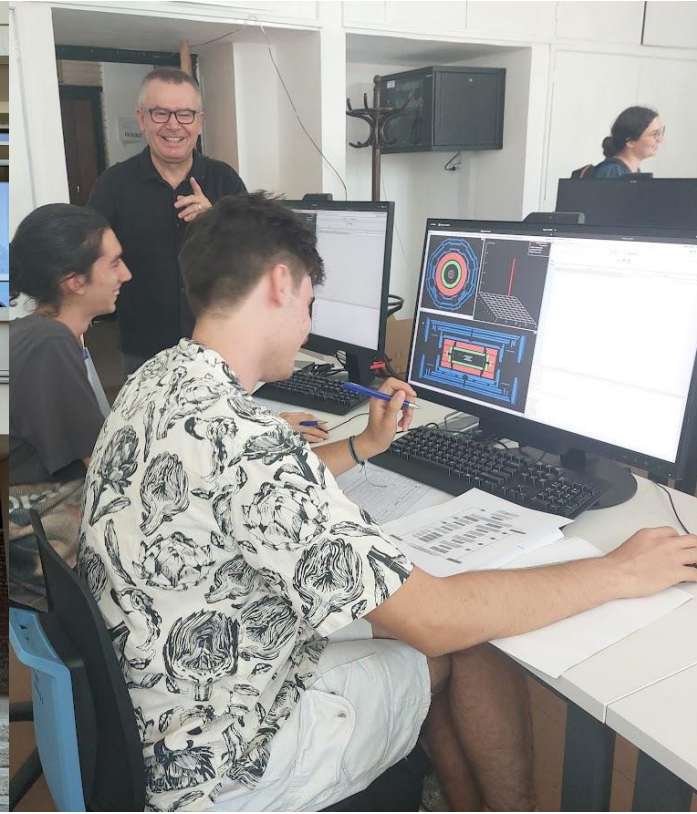
Participants (18)

Q Find a participant

- Joni Pham (Host)
- Alexandru Hossu
- AP Andrei Popescu
- AP Andrei Puiu
- CA Christian Atkinson
- DP Dorothea Patachia
- IS Iustin Sandu
- Marina Rotaru
- MC Mihai Ciobotaru
- OW Oliver Wagner
- PM Popa Mihai
- RI Rares Ionescu
- SS Scotnitchi Sasha
- S Sorin Ticlete
- TB Tudor Bogdan
- V Vladimir Nicolae
- ZA Zamfir Alexandra

Invite Unmute Me

Workshop @FF-UB



**We are looking forward to your participation
in the educational programmes @CERN
and in Romania!**

<https://home.cern/about/what-we-do/train-educate-engage>

