

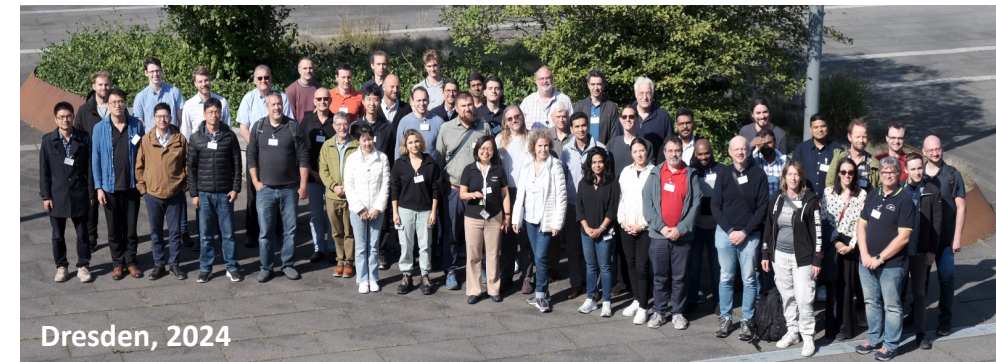
Welcome to PhASE26

- A workshop in Europe about photocathodes for accelerators ?

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 - Milano, 2006 : « Workshop on high QE photocathodes for RF guns » (~30 participants)
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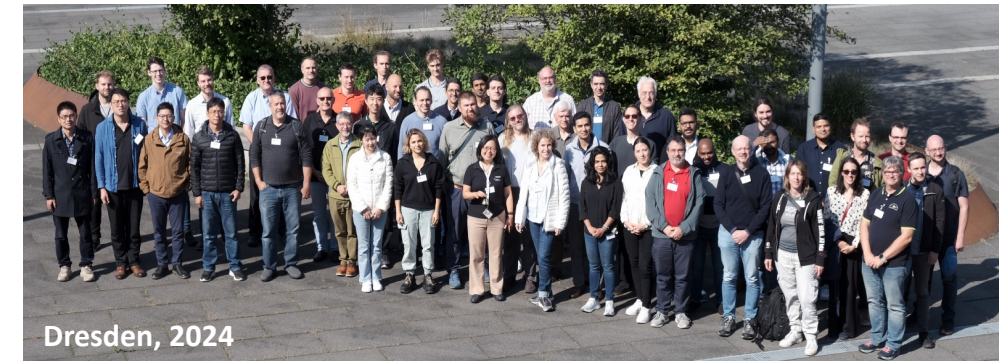
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- Workshop series launched to create regular meetings in EU, on opposite years of US-P3 meeting
 - *European Workshop on Photocathodes for Accelerator Applications (EWPAA)*
- Summary of EWPAA editions *:
 - UKRI STFC, Daresbury : 2016
 - HZB, Berlin : 2017
 - PSI, Villigen : 2019 (~ 50 participants)
 - INFN LASA, Milano : 2022 (48 participants)
 - HZDR, Dresden : 2024 (63 participants)



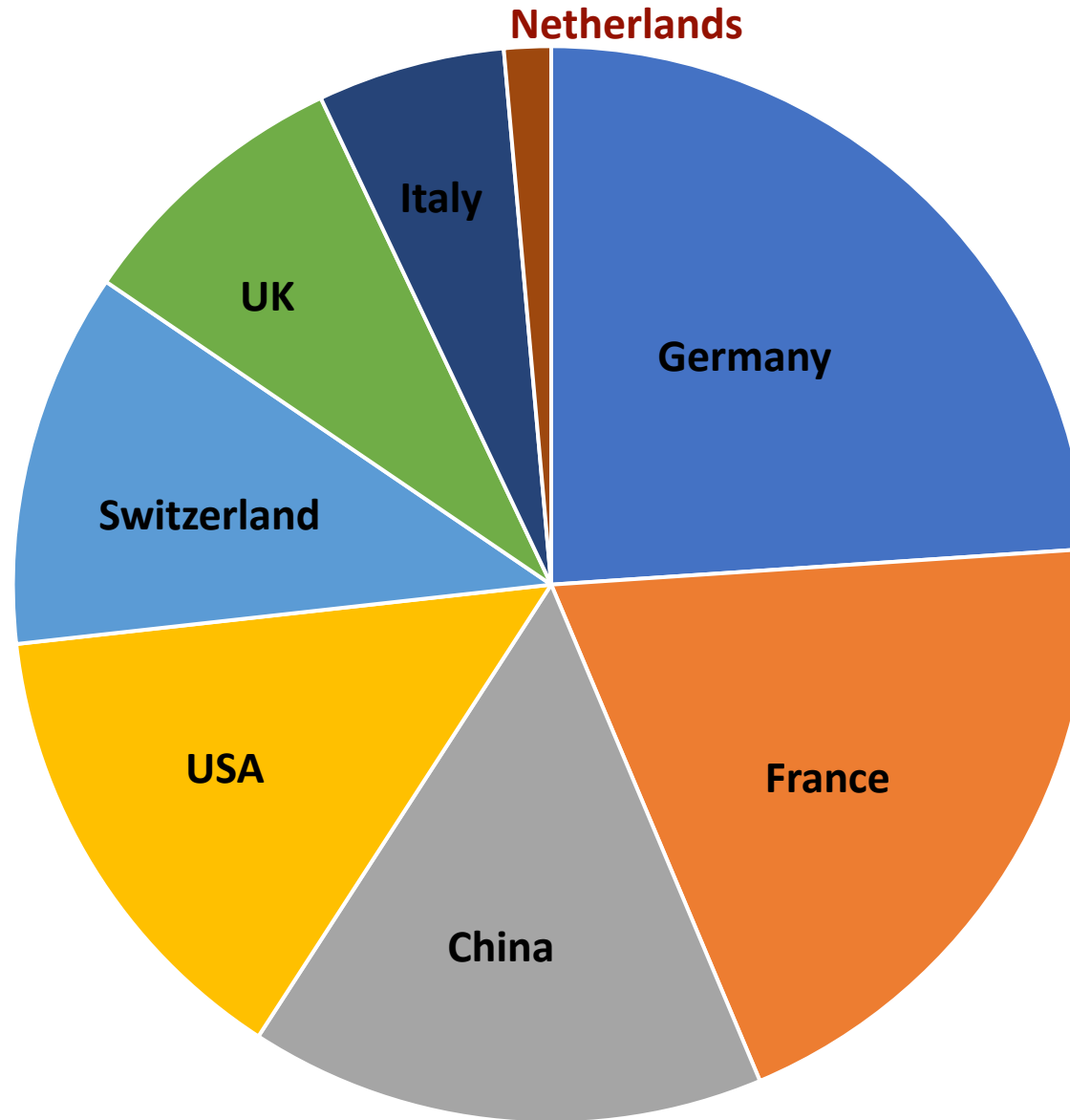
* <https://events.hifis.net/event/1255/page/351-former-ewpaas-and-p3>

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- Name change to *Photocathodes for Accelerator Science in Europe (PhASE)* in 2026
 - CNRS/IN2P3 IJCLab, Orsay : 2026 (71 participants)



- In total, 71 people



- **34 talks in different sessions (only 2 remote):**

- | | |
|---|--------------------|
| <ul style="list-style-type: none"> • overview of photocathode research • accelerator applications of photocathodes | } Monday, am & pm |
| <ul style="list-style-type: none"> • photocathode related studies and novel concepts • metallic photocathodes • semiconductor photocathodes • polarized photocathodes | } Tuesday, am & pm |
| <ul style="list-style-type: none"> • theory of photocathodes • characterization techniques | } Wednesday, am |

- ***Tutorial « Photocathode physics, a band structure perspective » by Andreas Schroeder***

- Intended mainly to students
- Everyone can attend, but please allow questions to the students
- Abstract and slides on the indico
- Monday, 5:10 - 6:10 (before the well-deserved cocktail)



Thanks to Andreas!

<https://indico.ijclab.in2p3.fr/event/13323/overview>

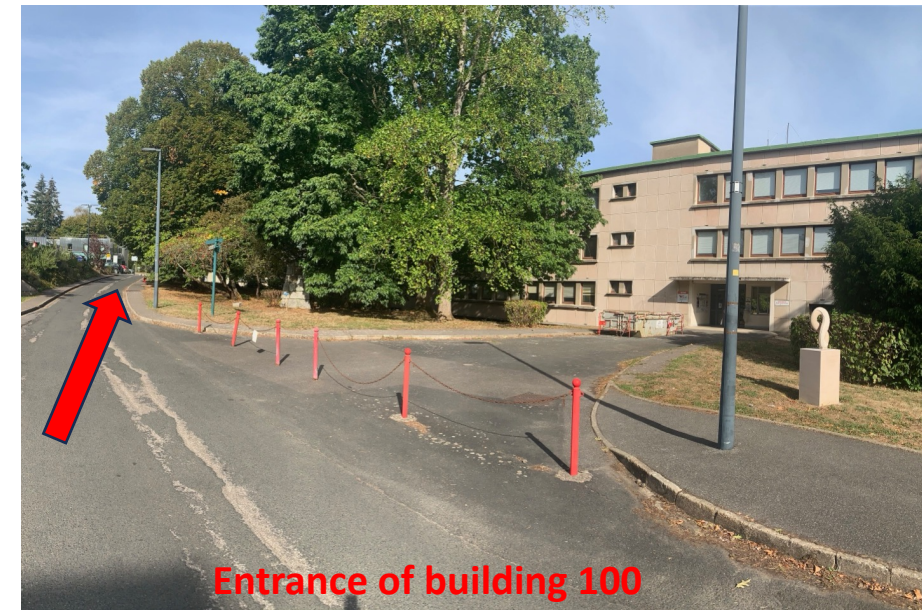
LUN. 21 SEPTEMBRE		
09:00 → 10:00	Registration	
10:00 → 10:45	Opening session Président de session: Maud BAYLAC (CNRS)	
10:00	Introduction to the workshop Orateur: Maud Baylac	10m
10:10	Welcome by IJCLab director and overview of IJCLab activities Orateur: Prof. Achille Stocchi	35m
10:45 → 12:45	Overview of photocathode research: Overview Président de session: Maud BAYLAC (CNRS)	
10:45	Summary from Europe EWPAA24 Orateur: Rong Xiang	30m
11:15	Coffee break	30m
11:45	Progress report from China Orateur: Huamu Xie	30m
12:15	Summary from USA P3-2025 Orateur: Siddharth Karkare	30m
13:00 → 14:30	Lunch at the university cafeteria	
14:30 → 17:10	Photocathodes for accelerator applications	
14:30	R&D with the sealab gun Orateur: Jonas Dube	20m
14:50	R&D for CLARA Orateur: Hugh Churn	20m
15:10	Robust photocathodes for CW XFEL Orateur: Xudong Li	20m
15:30	Cesium Telluride Photocathodes for the European XFEL and FLASH Orateur: Anna Winiarska-Bialk	20m
15:50	Coffee break	30m
16:20	UED sources for ultra fast applications Orateur: Charles Zhang	20m
16:40	Electron source development and charge scaling at FACET-II Orateur: Brendan O'Shea	20m
17:10 → 18:10	Tutorial: Photocathode physics, a band structure perspective Président de session: Andreas Schroder	
18:10 → 19:40	Posters	

Group photo at 15h50, outside, in front of the building if weather permits

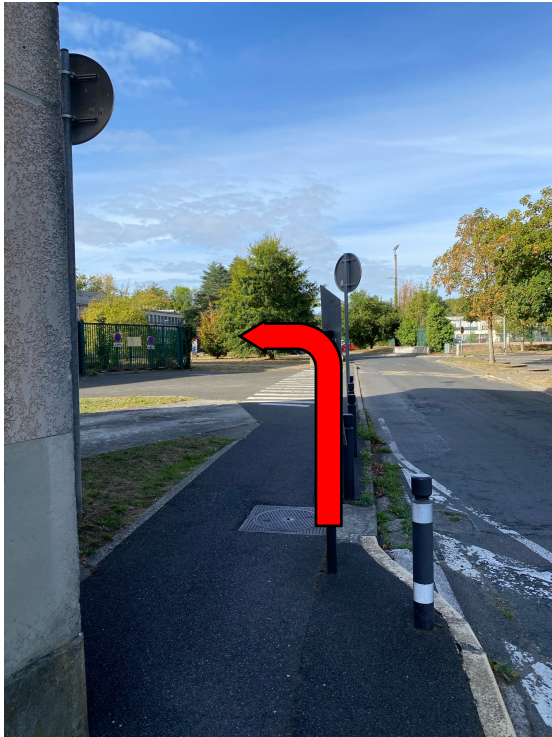
- **Lunches are organized at the university cafeteria**
 - Prepaid lunches with registration fees, dedicated room for the participants : **please, wear your workshop badge**
 - About 10 min walk from the auditorium
 - **Lunch after 1 pm every day**



Towards the cafeteria – 1/2



Towards the cafeteria - 2/2



Go around building 200



Building 230



Right side

- **Presentation file**

- **Please upload your talk on indico at least ½ day before your presentation**
 - Or email to baylac@lpsc.in2p3.fr or kaabi@ijclab.in2p3.fr
 - Let us know ahead of time if you have some special items to test (movies)
- **You must include 5 min of Q/A in your time slot**

- **Proceedings**

- **1-page abstract for each talk with template provided, due September 30**
- A list of posters will be included
- **To be submitted to arXiv (DOI) and on the CNRS/IN2P3 document portal HAL**

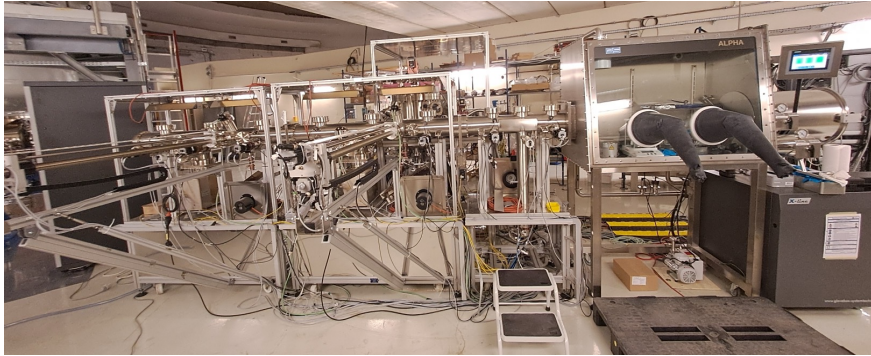
Thanks to all speakers

• Posters

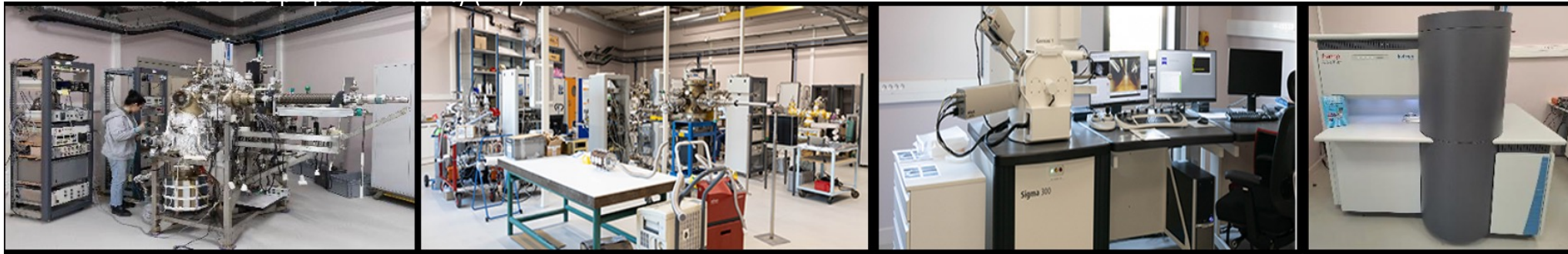
- To be set up in front of the auditorium and in the coffee/cocktail room
- Enjoy the cocktail tonight during the poster session
- Can be displayed for the whole event duration
- Please provide your poster info (title and author) by email to baylac@lpsc.in2p3.fr or lee.jones@stfc.ac.uk



- Visits scheduled Wednesday 23, 2:30-4:30
 - PERLE photogun and photocathode preparation facility (PPF) : 50'

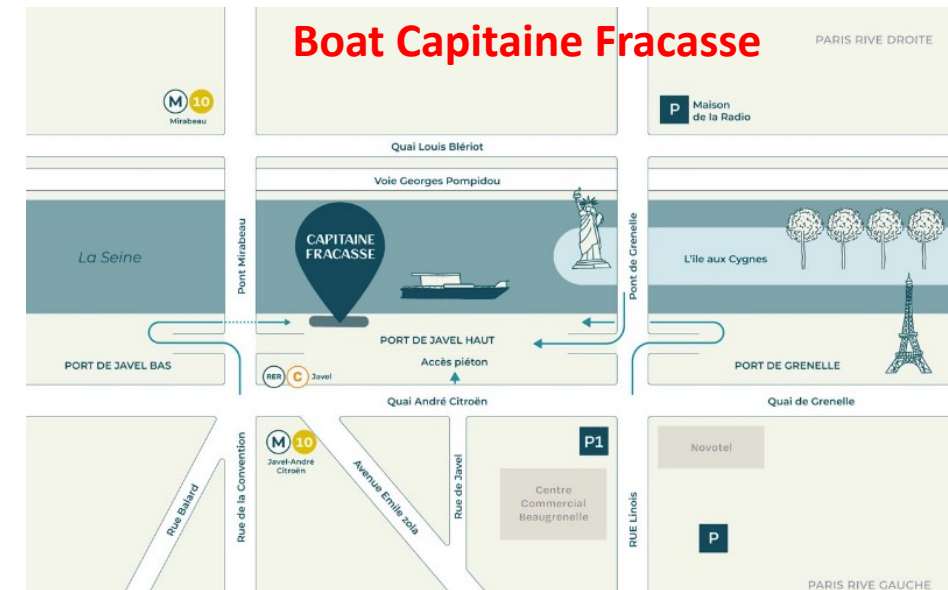


- Characterization platform « Vacuum and surface » : 50'



- Luggage can be stored in auditorium or in locked room ground floor A015
 - Please provide your personal info by email
- Final coffee break at 4:30

- **Dinner cruise on the Seine river on Tuesday September 22**
 - Cruise along the Seine to gaze upon the iconic monuments: Eiffel Tower to the Louvre
 - **Boarding 7.30 - Departure 8.00 - Return 10.15**
 - **Boarding at 7:30 pm, Port de Javel Haut, 75015 Paris (Capitaine Fracasse) → Be on time**
- **You are responsible for you trip to Paris:**
 - **The trip takes about 1h10 with public transportation from Orsay**
 - RER B at "Orsay ville" towards "Aéroport Charles de Gaulle" then change at "Saint-Michel Notre-Dame"
 - **RER C towards "Gare de Chaville - Vélizy" and stop at "Javel" (easiest route)**
 - Pedestrian acces at the foot of the Mirabeau bridge, near RER station
- **Trip requires 1 ticket RER-metro 2,55 € each way, for you to purchase**
 - **Phone via the app « Ile de France mobilité »**
 - Or, at any RER or metro station Navigo easy card (2€ extra)
 - Itinerary and timetables : <https://www.ratp.fr>
- **For the return trip to Hotel d'Orsay:**
 - RER C towards « Gare de Juvisy » then change at "Saint-Michel Notre-Dame"
 - RER B towards « Saint-Remy les Chevreuse » and stop at « Le guichet »
 - **or Uber, or Bolt (or Taxi)**
- **If you need assistance, let us know and we will be happy to help**



If you are lost, call +33 1 41 41 90 70

If you cannot make it but are registered, please let us know

- **Chair persons : Maud Baylac and Walid Kaabi**
- **Scientific Organizing Committee**
 - Maud Baylac (CNRS-LPSC)
 - Dmitry Bzyl (DESY)
 - Caterina Cocchi (Universität Oldenburg)
 - Romain Ganter (PSI)
 - Eduardo Granados (CERN)
 - Lee Jones (UKRI STFC)
 - Julius Kühn (HZB)
 - Tim Noakes (UKRI STFC)
 - Daniele Sertore (INFN Milano - LASA)
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- **Network eduroam available at the lab**
- **Network IJCLab-public :**
 - Register on the pop up window
 - Wait for approval : receive your login and password by email
 - Login within 5 minutes

Enjoy the workshop, talks and discussions!

Agenda – 1/3

<https://indico.ijclab.in2p3.fr/event/13323/overview>

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Lunch after 1 pm every day

Maud Baylac

Eduardo Granados

Group photo at 15h50, outside, in front of the building if weather permits

Agenda – 2/3

MAR. 22 SEPTEMBRE	
09:30 → 11:20	Photocathode related studies Président de session: Lee Jones
09:30	Electron beam from laser-cooled atoms: latest developments at Eindhoven Orateur: Julius Huijts
09:50	Ultrafast Electron Diffraction Sources and Photocathode R&D at Tsinghua University Orateur: Renkai Li
10:10	Compact all optical terahertz (THz)-driven electron source Orateur: Nicholas Matlis
10:30	Field emission and plasmon-assisted photocathodes: from field-emitter arrays and single emitters to graphene-edge cathodes Orateur: Soichiro Tsujino
10:50	Coffee break 30m
11:20 → 13:00	Metallic and semiconductor photocathodes Président de session: Rong Xiang (HZDR)
11:20	Cryogenically cooled copper photocathode for SRF gun Orateur: Dmitry Bazyl
11:40	Electron emission at metallic needle tips and nanophotonic electron accelerators Orateur: Manuel Konrad
12:00	Semiconductor photocathodes feedback and towards FCCee Orateur: Giulia Tenasini
12:20	Soft- and hard XPS and XAS measurements on a Na-K-Sb photocathode Orateur: Alice Galdi
12:40	Photocathode developments for Brixino Orateur: Daniele Sertore
13:00 → 14:30	Lunch at the university cafeteria

Lee Jones

Rong Xiang

14:30 → 16:00	Semiconductor photocathodes Président de session: Julius Kuehn
14:30	First results of PERLE photocathode Orateur: Gaël Sattonnay (IJCLAB)
14:50	Photocathode developments at SLAC Orateur: Theo Vecchione
15:10	Semiconductor photocathodes: Modeling electron emission processes Orateur: Andreas Schroder PhASE2026_Pres...
15:30	Coffee break 30m
16:00 → 17:40	Polarized photocathodes Président de session: Daniele Sertore (INFN Milano - LASA)
16:00	High polarization photocathodes at Mainz Orateur: Kurt Aulenbacher
16:20	Enhanced GaAs activation using Li and recent developments towards automated activation Orateur: Markus Engart
16:40	Operating and Innovating a Polarized Electron Source Orateur: Joseph Grames
17:00	High polarization high QE photocathodes for EIC Orateur: Erdong Wang
17:20	GaAs photocathodes in SRF gun Orateur: Erdong Wang
17:45 → 22:15	Trip to Paris (RER/metro) and diner cruise on Seine river

Julius Kuehn

Daniele Sertore

Agenda – 3/3

MER. 23 SEPTEMBRE		
09:30 → 11:20	Photocathode theory	
	Président de session: Catherina Cocchi	
09:30	Ab initio many-body photoemission model	⌚ 20m
	Orateur: Richard Schier	
09:50	Photoemission simulation from nanostructured surfaces	⌚ 20m
	Orateur: Margarita Bulgacheva	
10:10	Collective and surface charge effect for high brightness e bunch production for FCC	⌚ 20m
	Orateur: Anahita Omoumi	
10:30	Ab initio modelling of photoemission	⌚ 20m
	Orateur: Felix Mildner	
10:50	Coffee break	⌚ 30m
11:20 → 12:20	Characterization techniques	
	Président de session: Tim Noakes	
11:20	Characterization of lifetime of bi alkali photocathodes	⌚ 20m
	Orateur: Saransh Malhotra	
11:40	Photocathodes transfer for PERLE	⌚ 20m
	Orateur: Verena Kuemper	
12:00	Photocathodes transfer for suitcase purposes	⌚ 20m
	Orateur: Cyril Straessle	
12:20 → 13:00	Closing session	
13:00 → 14:30	Lunch at the university cafeteria	
14:30 → 17:00	Lab tour	
14:30	Visit of IJCLab facilities	⌚ 2h
16:30	Coffee break	⌚ 30m

Caterina Cocchi

Tim Noakes