

APRENDE

APRENDE workshop - from experiments to evaluations

WP2 – WP4 meetings #2

EPFL, Lausanne, 6-7 / 07 / 2026

Maëlle Kerveno, CNRS/IPHC

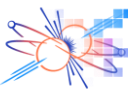
Mathieu Hursin, EPFL

Daniel Cano Ott, CIEMAT



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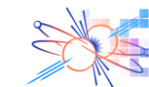
General goals of this series of meetings

- Create a space where experimentalists and evaluators can exchange about
 - their practices
 - their expertise
 - to better understand the constraints, the needs, etc of each other

- Enhance links between communities to
 - better know each other
 - share, as much possible as, common objectives



WELCOME !!



Goals of this second meeting

dedicated to the work (exp & eval) performed in APRENDE on **Pu isotopes**

- Provide a description of experimental (XS, FY, resonance parameters & n prompt multiplicities measurements) and evaluation works on-going and foreseen in APRENDE,
- Foster the discussions between all actors to better understand all the issues of experimental and evaluation activities,
- Share good practices to tend to efficient evaluations and the completion of deliverables.
(deliverables 2.7, 2.8, 2.9, 2.12 , 4.5, 4.6, 4.9)



Large place for discussion (informal presentations)
Feel free to respond, ask any questions that come to mind,

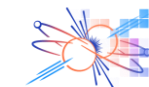
This workshop is YOUR workshop!



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REMINDER



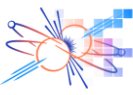
Deliverables 2.7, 2.8, 2.9, 2.12 , 4.5, 4.6, 4.9

- **2.7** Report on measurement results for **fission yields** of **²³⁹Pu**, ²⁴³Cm, ²³³U (GANIL) ★
- **2.8** Report on measurements for **²⁴²Pu and ²⁴⁰Pu (n,f) cross section** (CNRS) ★
- **2.9** Report on **²³⁹Pu(n,f) and (n,tot) measurements** (CEA) ★
- **2.12** Report on **(n,g) measurements on actinides** (²³⁸U, **²⁴¹Pu**) (CIEMAT) ★
- **4.5** **Thermal fission yield evaluations** of ^{233,235}U and **^{239,241}Pu** and **fast fission yields for ²³⁹Pu** ★
- **4.6** Report on the validation of the fission yield libraries (thermal and fast): MYRRHA-like fast systems and thermal systems for decay heat
- **4.9** New **actinide evaluations** for ²³⁵U, ²³⁸U, **²³⁹Pu**, ²⁴⁰Pu and ²⁴¹Pu ★ ★ ★



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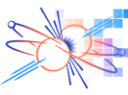


EXPECTED OUTCOMES OF THE MEETING

- A report summarizing the exchanges between experimentalists and evaluators, focusing of the following aspects:
 - Weakness in the current Pu evaluations
 - Impact on applications (criticality, decay heat)
 - How current experimental data planned for APRENDE will address those
 - Suggestion for additional measurements to address those weaknesses
 - publication in a journal / At least an APRENDE report.
- Contributions to the APRENDE deliverables catalog collaborative efforts between experimentalists and evaluators as part of the APRENDE deliverables and facilitate connections between the individuals involved
 - Use some of the outcomes of the workshop in those deliverables



PRACTICAL INFORMATION



Teams link and Wifi

- Zoom (recorded for reporting purposes)

No passwords

Monday morning: <https://epfl.zoom.us/jc/67037478624>

Monday afternoon: <https://epfl.zoom.us/jc/64971595920>

Tuesday morning: <https://epfl.zoom.us/jc/63882756772>

- WIFI

eduroam



local

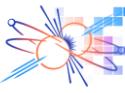
freewifi-epf (requires phone number /
receiving txt message)



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PRACTICAL INFORMATION



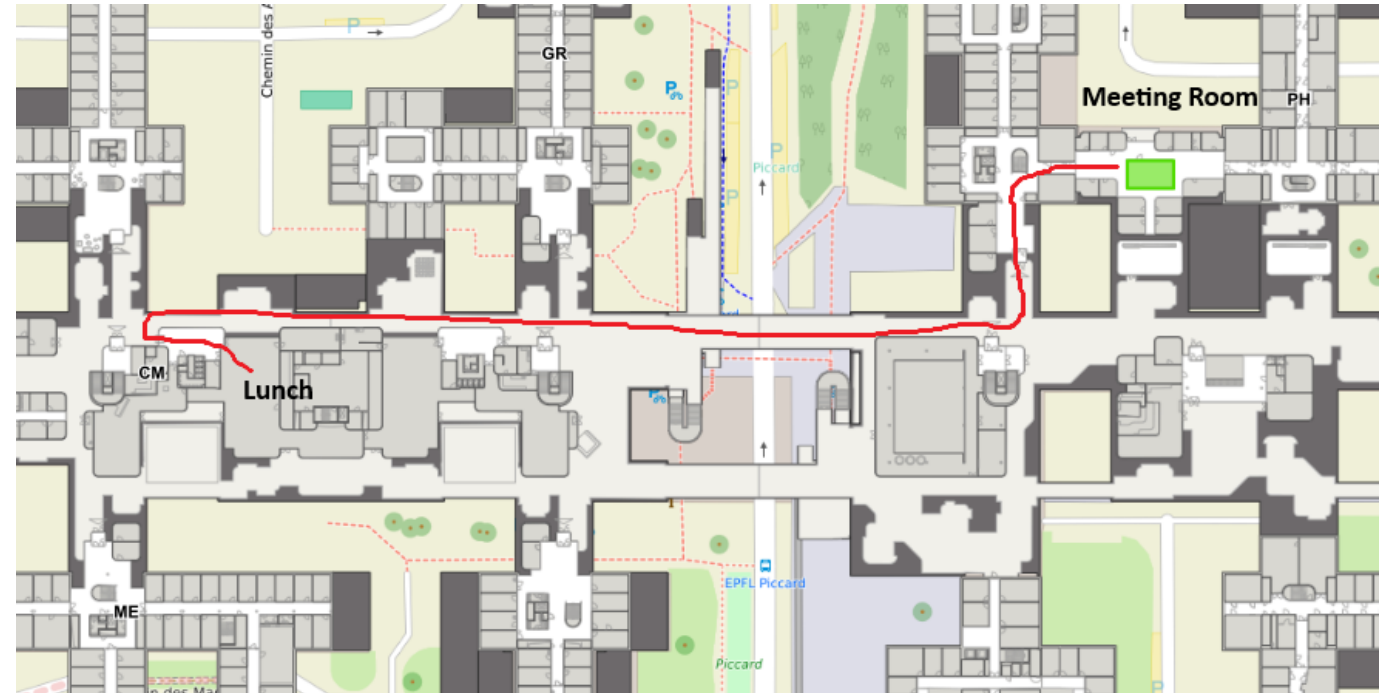
Coffee breaks

- Nespresso machine

Lunches

- At the Alpine restaurant

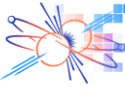
Lunches offered by EPFL



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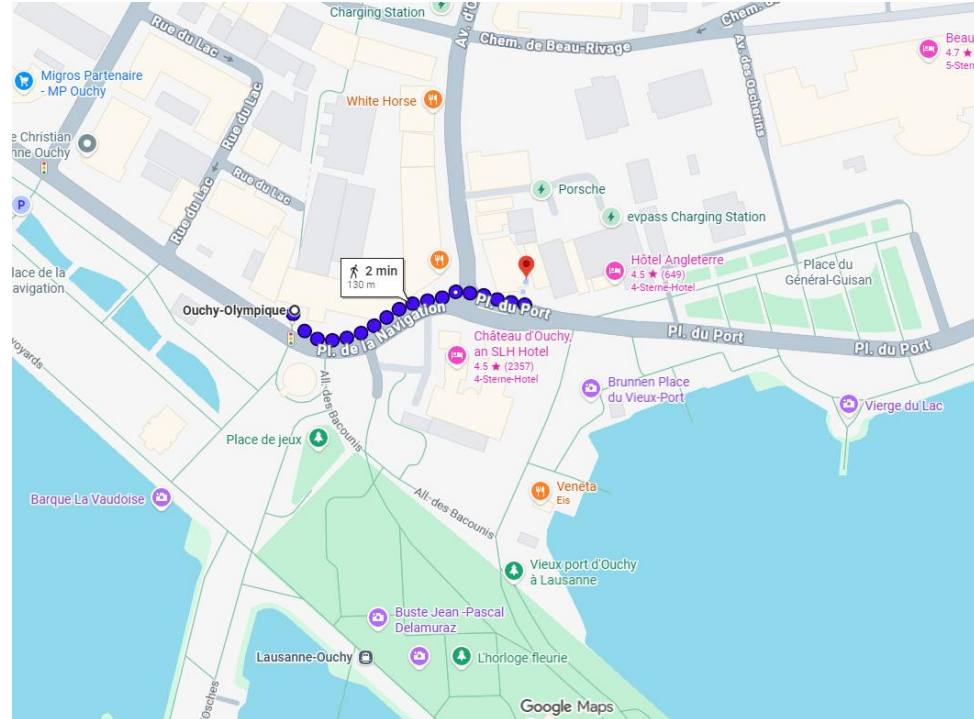
PRACTICAL INFORMATION



Diner 6/7/2026 – 19h

➤ **Restaurant Vieil Ouchy**
Place du Port 3, 1006 Lausanne
3min from the Ouchy M2 stop

- Offered by EPFL
- Fixed menu
- update



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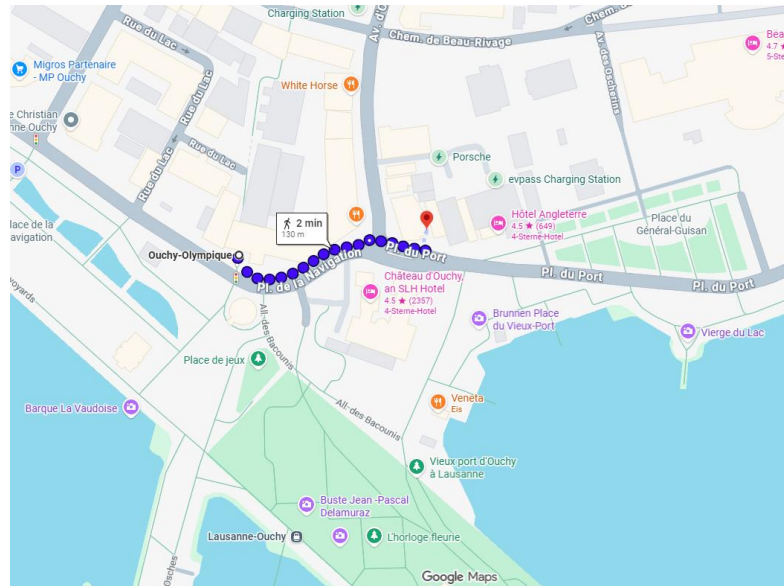
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PRACTICAL INFORMATION

Diner 6/7/2026 – 19h

Menus (remember the choice you have made):

- Vegetarian Menu 3
- Meat Menu 3
- Fondue Menu 1
- Fish Menu 8



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LET'S START!

MON, JULY 6

9:15 AM → 10:00 AM

Accueil
Accueil, coffee

9:45 AM

Welcome address by the project coordinator and the workshop hosts
Speakers: Daniel Cano Ott (CIEMAT), Mathieu Hursin (EPFL), Maëlle Kerveno (CNRS)

15m

10:00 AM → 3:10 PM

Resolved Resonance Range

10:00 AM

JEFF-4 Validation for Pu isotopes
include 20' of discussion
Speaker: Steven van der Marck (NRG Pallas)

40m

PH B2 395

10:40 AM

Evaluation issues in the RRR
include 20' of discussion
Speaker: Gilles Noguère (CEA)

40m

PH B2 395

11:20 AM

project APRENDE/WP2/REMUS Resonance Prompt Neutron Multiplicity in Pu239 Fission
Remote connection
include 20' discussion
Speaker: Olivier Litaize (CEA)

40m

PH B2 3...

12:00 PM

Lunch
Alpine Restaurant

1h 30m

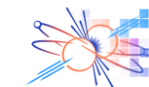
Alpine



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LET'S CONTINUE!



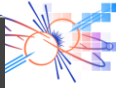
12:00 PM	Lunch	🕒 1h 30m 📍 Alpine	
	Alpine Restaurant		
1:30 PM	project APRENDE/WP2/Pu239 Toward new measurements and evaluation of the Pu239 resonance parameter	🕒 40m 📍 PH B...	✎
	Emilio Mendoza connecting remotely include 20' of discussion		
	Speaker: Adrián Sánchez Caballero (CIEMAT)		
2:10 PM	project APRENDE/WP2/Cap-Fiss-Pu241 Measurements of the 241Pu fission and capture cross sections at GELINA and n_TOF	🕒 40m 📍 PH ...	✎
	include 20' discussion		
	Speaker: Emmeric Dupont (CEA)		
2:50 PM	Summary Wrap-up	🕒 20m 📍 PH B2 395	✎
	additional discussions, summary of main points		
3:10 PM → 6:00 PM	Above the Resolved Resonance Range		✎
3:10 PM	Evaluation issues in the fast energy range	🕒 40m	✎
	include 20' discussions		
	Speaker: Marc Verrière (CEA)		
3:50 PM	Coffee	🕒 30m	
4:20 PM	project APRENDE/WP2/PuF 240Pu Fission cross section	🕒 40m	✎
	include 20' discussions		
	Speaker: Ludovic Mathieu (LP2I)		



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LET'S CONTINUE!



TUE, JULY 7		
8:30 AM → 1:00 PM	Decay Data and Fission Yields	
8:30 AM	Potential deficiencies in the current JEFF-4 DD/FY files for the Pu isotopes, visible at the validation level (decay heat, PIE, etc...) includes 20' discussion Speaker: Lydie Giot (Subatech)	⌚ 40m
9:10 AM	Pu fission yields evaluation : needs Remote connection includes 20' discussion Speaker: Grégoire Kessedjian (CEA)	⌚ 40m
9:50 AM	Project APRENDE/WP2/SENFY Fission Yields measurements includes 20' discussion Speaker: Fanny Farget (GANIL)	⌚ 40m
10:30 AM	Coffee	⌚ 30m
11:00 AM	Contribution of the DDEP collaboration to the JEFF4 Radioactive Decay Data Library includes 10' discussion Speaker: Xavier Mougeot (CEA)	⌚ 30m
11:30 AM	Nuclear structure / Decay data includes 10' discussion Speaker: Stefan Lalkovski (Sofia University)	⌚ 30m
12:00 PM	Constraints for production of new experimental data Remote connection includes 20' discussion Speaker: Alejandro Algora (CSIC)	⌚ 40m
12:40 PM	Conclusion Meeting wrap-up and path forward Speakers: Daniel Cano Ott (CIEMAT), Mathieu Hursin (EPFL), Maëlle Kerveno (CNRS)	⌚ 20m



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Get in touch for more information:



<https://aprende-project.eu/>



contact@aprende-project.eu

Thank you!



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