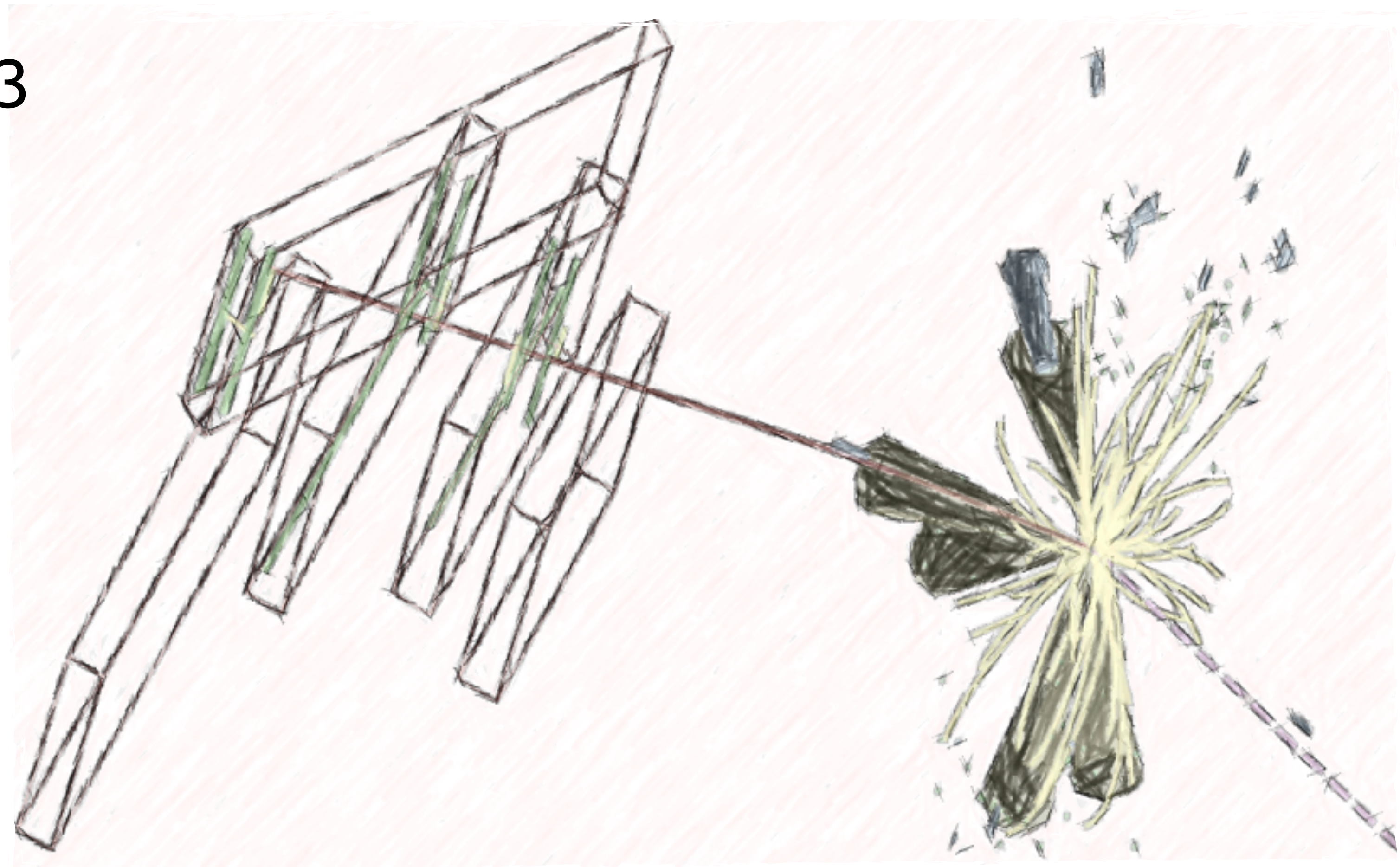


Orsay 2023 W mass Workshop

23 - 24 February 2023
IJCLab

Valerio Bertacchi
Marteen Boonekamp
Emi Kou
Zhiqing Zhang



The aim of the workshop

- We would like to create an **environment to discuss freely** the recent development and the next measurements of W-mass and related topics
- We tried to bring at IJCLab all the **protagonist** of this field:



- We also would like deepen the knowledge of W mass to **not-directly-involved scientist**, to improve the general awareness of (at least local) HEP community of the challenges of this field



Laboratoire de Physique
des 2 Infinis

- A joint research unit of    Université Paris Cité within the Orsay Campus
- Merge of 5 pre-existing laboratory: *CSNSM, IMNC, IPNO, LAL* and *LPT*
- About 730 between researchers, engineers and technicians
- Several scientific poles: Astroparticles, Astrophysics and Cosmology, Accelerator Physics, High-Energy Physics, Nuclear Physics, Theoretical Physics, Energy and Environment, Health Physics, plus the Engineering pole

Schedule

THURSDAY, 23 FEBRUARY	
10:00 → 10:30	Coffee
10:30 → 10:45	Welcome and introduction Speaker: Valerio BERTACCHI (Aix Marseille Univ, CNRS/IN2P3, CPPM, Marseille, France)
10:45 → 12:45	Experiments: Current Status and combination
10:45	LHCb mW measurement with 2016 data Speaker: Ross Hunter
11:15	ATLAS measurement and Combination Speaker: Maarten Boonekamp (IRFU)
11:45	Discussion
12:15 → 14:15	Lunch
14:15 → 17:35	Theory: Standard Model related topics
14:15	Determination of the W-boson mass at hadron colliders Speaker: Alessandro Vicini
14:45	QCD precision predictions for W-mass measurements (remote) Speaker: Tobias Neumann (BNL)
15:15	coffee break
15:45	Mixed QCD-EW corrections and the W-mass determination Speaker: Raoul Röntsch
16:15	Monte Carlo event generators and electroweak corrections for charged-current Drell-Yan Speaker: Mauro Chiesa
16:45	Round table discussion
19:30 → 21:30	Dinner

EXPERIMENTS


THEORY

FRIDAY, 24 FEBRUARY	
09:30 → 12:30	Theory: BSM
09:30	Global fit Speaker: Chen Wang
10:00	Probing extended Higgs sectors with the mass of the W boson Speaker: Gerog Weiglein
10:30	composite Speaker: Giacomo Cacciapaglia
11:00	coffee break
11:30	Interplay between High- and Low-energy physics for the W-mass anomaly Speaker: Tom Tong
12:00	discussion
12:30 → 14:30	Lunch
14:30 → 17:00	Experiments: Future prospects and new ideas
14:30	CDF measurement Speaker: Chris Hays (Oxford)
15:00	ATLAS future prospects Speaker: Zhibo Wu
15:30	LHCb future prospects Speaker: Miguel Ramos.Pernas
16:00	Combined EW and PDF fits Speaker: Juan Salvador Tafuya Vargas (IJCLab / Université Paris-Saclay)
16:30	coffee break
16:30 → 17:15	Theory and experiment: Final roundable
16:30	final roundtable

THEORY

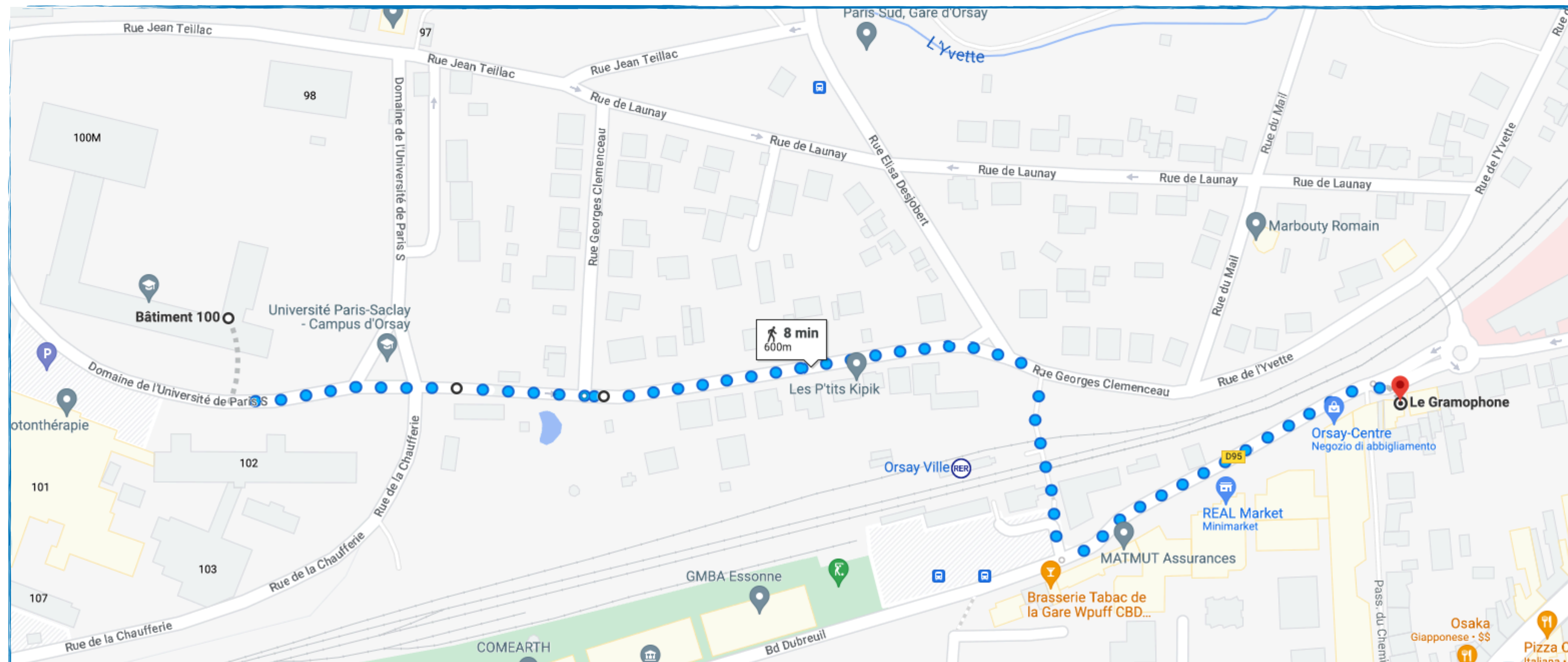
EXPERIMENTS

Social dinner

 **When:** Tonight, 19.30, Le Gramophone

 **Website:** <https://le-gramophone-restaurant-orsay.eatbu.com/?lang=en>

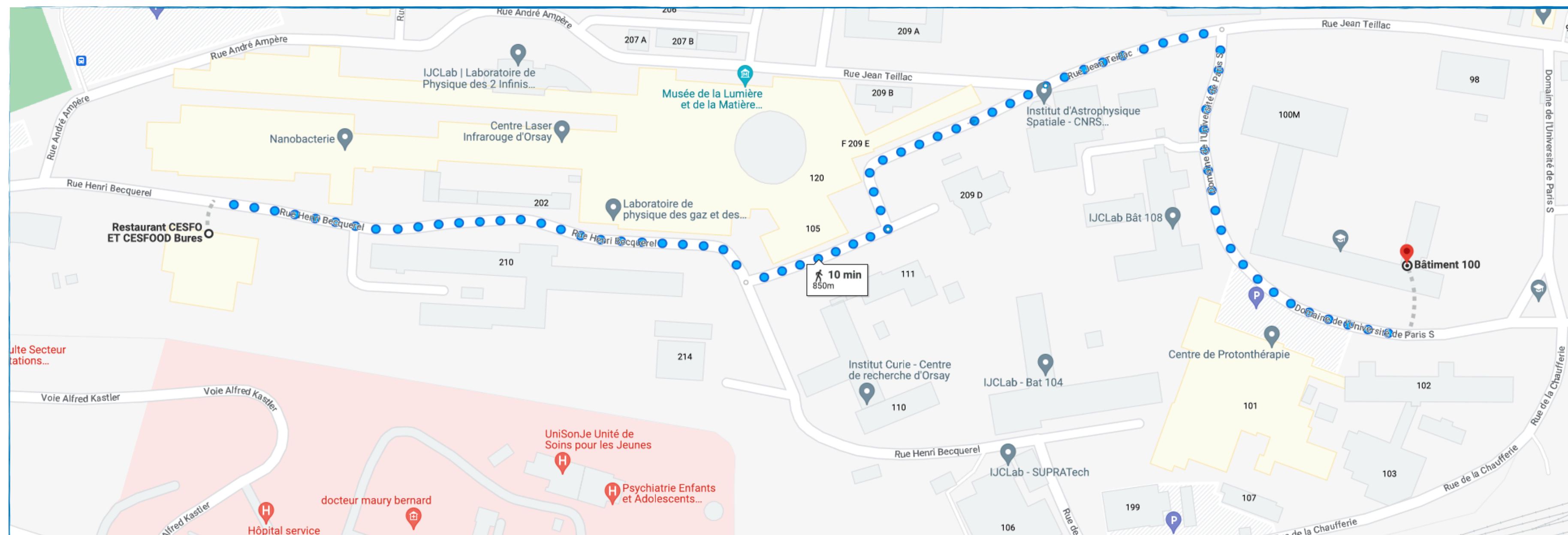
 **Address:** 27 Boulevard Dubreuil, Orsay



NB: The dinner is not included in the workshop covered expenses

Practicalities

- **Lunches:** offered by the workshop, at the Orsay campus restaurant (10 minutes walk distance from the conference venue).
- **Slides:** if you are not able to upload on indico, send the slides to me (bertacchi@cppm.in2p3.fr) or bring a usb drive to the room laptop.
- **Wi-fi:** edurom should work fine, if it not working for you ask and we will provide support.
- **Visit Paris:** with the RER-B (direction "Charles de Gaulle Airport" or "Mitry Claye") you can arrive directly to the city center!



Thank you for coming!

And thanks to the ATLAS-IJCLab group for the partial financial support to the workshop

The local organizers:

Valerio Bertacchi - bertacchi@cppm.in2p3.fr

Marteen Boonekamp - maarten.boonekamp@cern.ch

Emi Kou - kou@ijclab.in2p3.fr

Zhiqing Zhang - zhangzq@ijclab.in2p3.fr