

# **NA61++/SHINE: Physics Opportunities from Ions to Pions**

**S. Kowalski**  
**E. D. Zimmerman**

**Workshop welcome**  
**15 December 2022**

# **NA61++/SHINE: Physics Opportunities from Ions to Pions**

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- **Welcome to the workshop!**
- **Purpose**
- **Practical considerations**

# NA61/SHINE

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- NA61/SHINE has existed since 2006, as a collaboration among physicists in three areas: strong interactions (SI), neutrinos, and cosmic rays
- NA61 is the inheritor/successor to NA49
- NA61 has had three major “eras” of data collection, separated by CERN Long Shutdowns:
  - Run 1: up to 2012
  - Run 2: 2015-2018
  - Run 3: 2022-2025
- After 2025, the currently-approved program should be completed and CERN will have a third long shutdown.

# NA61++/SHINE

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- We must now consider the future of this beam and detector!
- There are **many** ideas for future measurements
- Some will be presented over this workshop
- Tomorrow afternoon there will be a discussion of possible collaboration structures that will allow us to accomplish more physics after 2028.  
Among these:
  - A new collaboration
  - A continuation of NA61
  - A hybrid model
  - Conversion to a facility
- There will be ample time for discussion, but please let the organizers know if there are specific points or ideas you would like to see discussed.

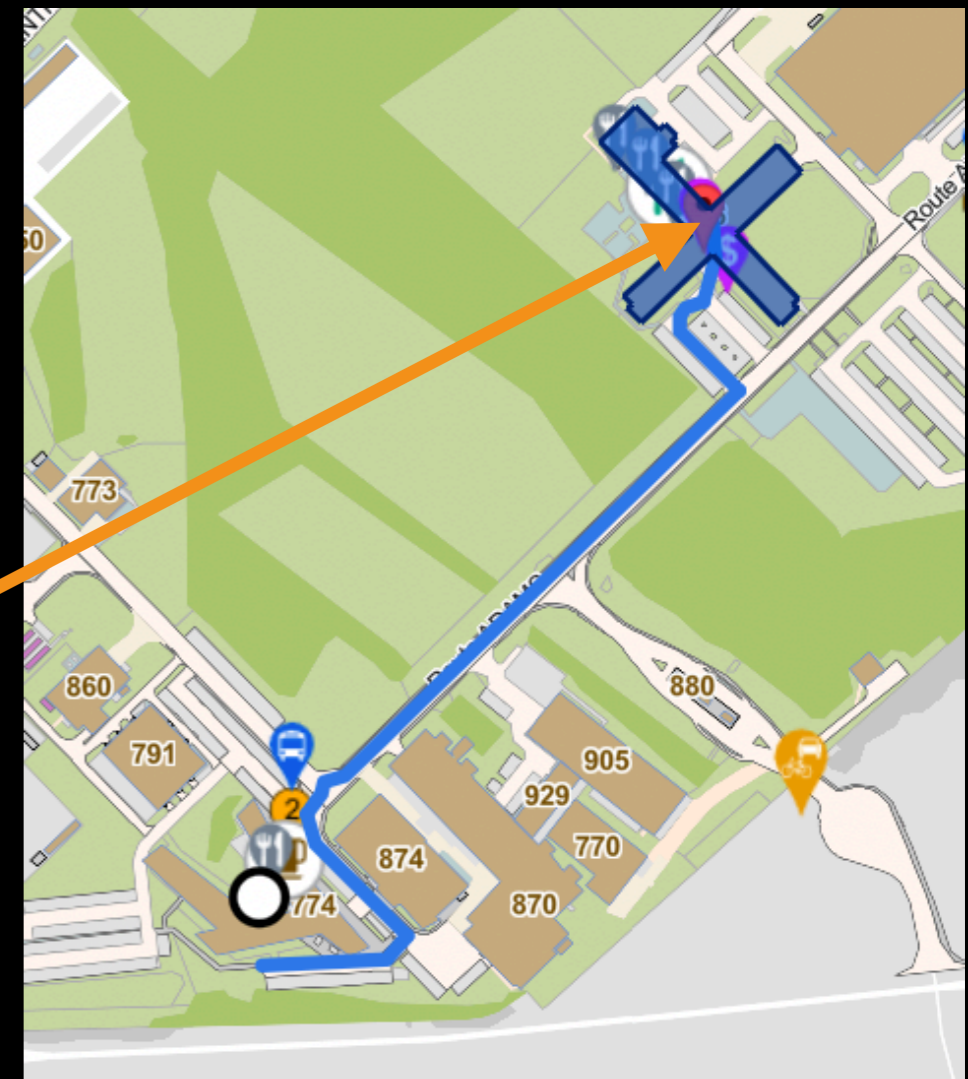
# **NA61++/SHINE: Physics Opportunities from Ions to Pions**

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- So, we are here to discuss
  - Cosmic ray physics opportunities
  - Strong interaction physics opportunities
  - Neutrino physics opportunities
  - Detector improvements
  - Beam improvements

# Practical considerations: today

- Today's tour: bus will leave from here after the coffee break, and return here for lunch
- More details will be given just before the coffee break
- The bus back to the Meyrin site leaves here at 17:30
- For lunch, Restaurant 3 is available in the ground floor of Building 866 (a 5-minute walk)
- Welcome reception will be in Building 500, on the mezzanine outside the main auditorium. From the bus, go inside and immediately up the stairs.



# **Practical considerations: tomorrow**

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- Tomorrow's sessions will be here as well
- Bus will leave from Building 500 again at the same time as today (8:40)
- Following discussion on the future, the bus will leave for the Meyrin site. It will stop for a while at the hostel and then leave for dinner at about 18:15.
- Dinner will be in the Jura mountains at an altitude of 1100 meters. It will be somewhat colder than here, so dress appropriately if you can.
- After dinner, the bus will return to the hostel.

# **Practical considerations:**

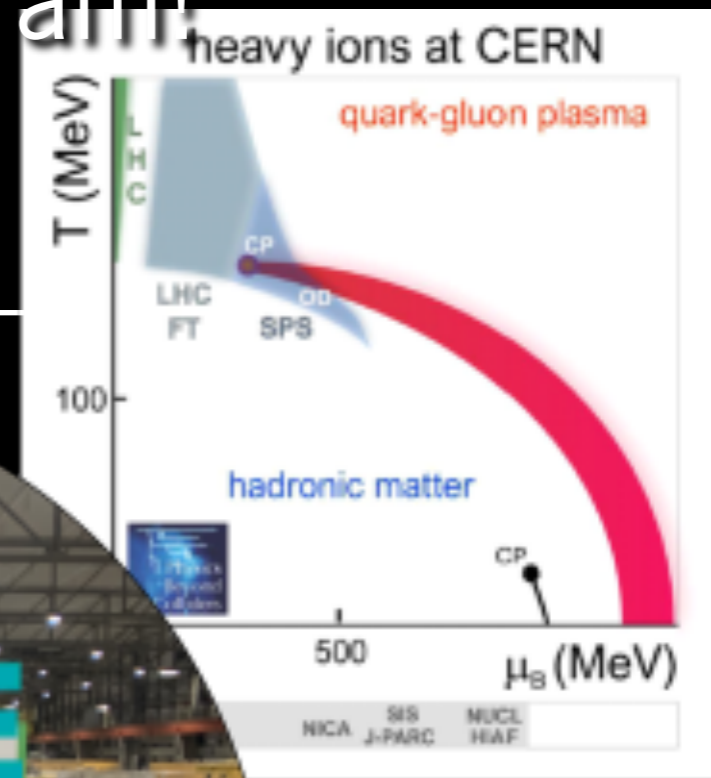
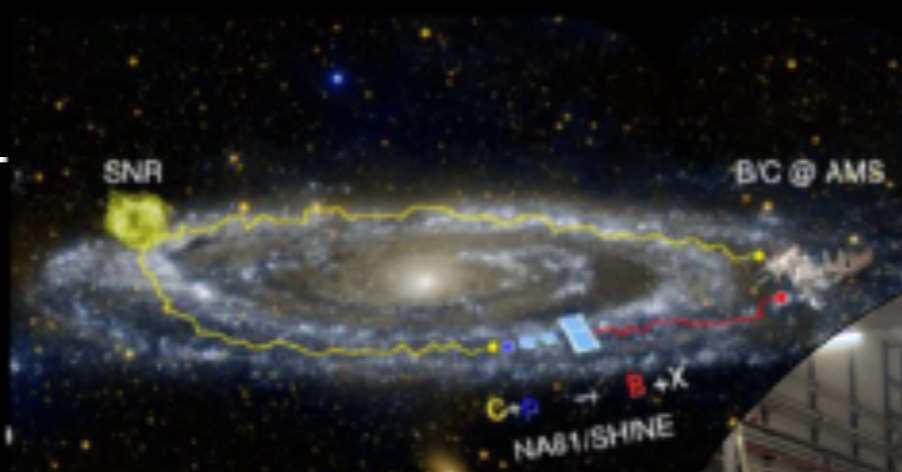
## **Saturday**

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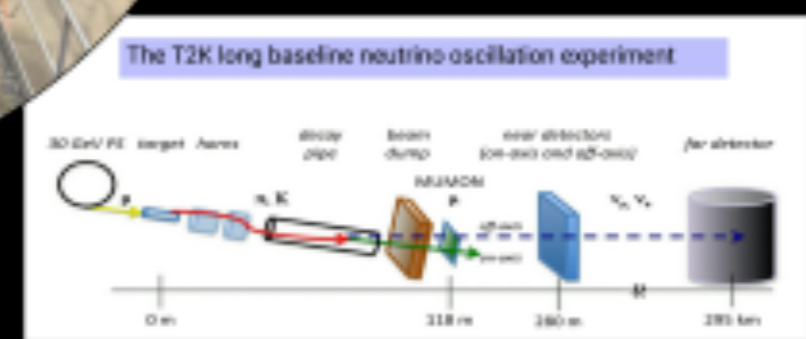
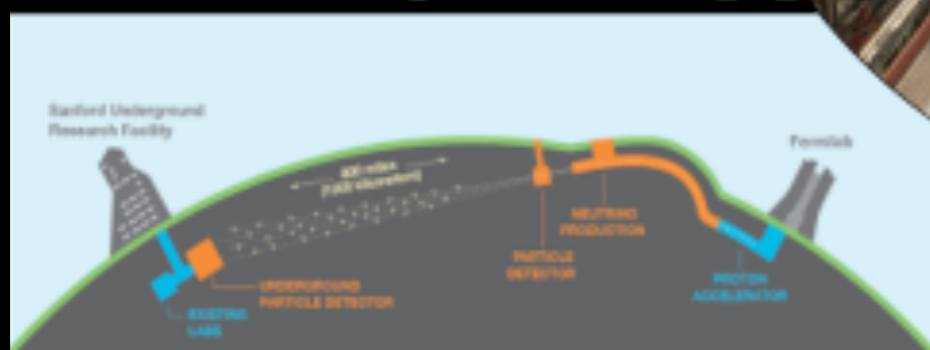
- **No service in Restaurant 1! Service in Restaurant 2.**
- **Meeting is in Building 31, next to Restaurant 2.**
- **More information tomorrow!**



Please enjoy this workshop and consider how to realize a new physics program!



# Physics opportunities from ions to pions



— Your hosts, Seweryn and Eric