

## General News

S. Muanza: CPPM Marseille, CNRS-IN2P3 & AMU

FC-CPPM Monthly Meeting

September 29, 2020



### 1 FCC France News

### 2 Meetings

## Objectives & Milestones

- Strategy for FCC-INT project:
  - FCC Trigger: magnets feasibility and manageable cost for the global project
  - Intensive R&D on high field magnets
  - FCC-ee as the  $e^+e^-$  higgs and EWK factory
  - Stages of FCC-ee:  $\sqrt{s} = M_Z, M_H, 2 \times M_W, M_H + M_Z, 2 \times M_t$
  - FCC-hh: including eh and heavy ions runs
- Definition of physics benchmarks (see repository [here](#))
- Build-up experimental communities
- Machine and infrastructure TDRs
- Design and optimization of detectors
- Study and select site
- FCC-ee Detectors TDRs
- FCC-hh Detectors TDRs
- Final qualification:
  - Decision around 2026 (next ESU)
  - Start of civil engineering construction by 2029
  - Start physics at FCC-ee around 2040 and run for  $\approx 10$  years
  - Start physics at FCC-hh around 2050 and run for  $\approx 20$  years

## Efforts Towards FCC-INT in Europe and in US

- France: well established (Contacts: G. Bernardi, R. Aleksan)
- Italy: well established (Contacts: F. Bedeschi)
- UK: lots of progress, contacts in all HEP groups and at the 2 STFC lab sites (RAL and DL), 1<sup>st</sup> meeting in September (Contacts: C. Leonidopoulos, G. Wilkinson)
- Poland: T. Lesiak planning FCC information day at Epiphany conference in January
- Spain: starting within a national "future colliders" structure (Contact: J. Alcaraz)
- CH: well in the road map, CHARD for accelerator ( $e^+$  source) discussions on towards effort FCC funding. CH unambiguously supported FCC-INT project.
- Belgium and Netherlands: just starting (Contact: F. Blekman)
- Contacts with Germany, USA, Austria, Estonia etc.. have been initiated, to be followed-up

## Latest Meeting of Lab Contacts (1/2)

- On 21 September 2020, see [Link](#)
- Contact with french Theory Community:
  - Representatives: G. Cacciapaglia (IP2I Lyon), B. Fuks (LPTHE Paris)
  - Outreach to CNRS-IN2P3 and CNRS-INP; to be extended to CEA IRFU
  - Survey: answered by 24 persons from 10 institutes

	FCCee	+ FCChh	+FCCeh	+H ions	Total
BSM	1	9	5	1	16
SUSY		2			2
Compositeness		2			2
Dark Matter		4			4
Higgs		3	3	1	7
EW precision	2	1	2	1	6
QCD		2	1		3
Flavour (B + top)	2	2	2		6
EFT			1		1


- Outcome: organize a theory session at the FCC-France Workshop in Annecy


## Latest Meeting of Lab Contacts (2/2)

- Activities of interest for us in other IN2P3 Labs:
  - IP2I Lyon: Monolithic Active Pixel Sensors in collaboration w/ IPHC-C4PI, CPPM (see talk by Patrick Pangaud)
  - LPNHE Paris: Physics Interest (higgs couplings, dijet mass resolution), Algos (vertexing, b/c-tagging), R&D (Si sensors: CALICE, ITk)
  - IPHC Strasbourg (plus C4PI): MC Generators (top physics), inner tracker (geometry, software,...)
  - LLR Palaiseau: Higgs self-couplings, measuring  $\sigma(e^+e^- \rightarrow HZ)$  at 2 CoM energies
  - IJCLab Orsay: LAr calorimetry
  - LAPP Annecy: measuring  $\sigma(e^+e^- \rightarrow HZ)$ , LAr calorimetry
  - LPC C-F: vertexing, b/c-tagging

## Current Meeting Outline

### FC-CPPM Monthly Meeting

 mardi 29 sept. 2020 à 10:00 → 12:00 Europe/Paris

 Zoom

**Description** Please join the meeting by clicking this link:  
Plan A: ZOOM  
<https://cern.zoom.us/j/99371738859?pwd=MWlKYitHM0F4d0ZmMW9zOVdUck9wUT09>


Plan B: VIDYO  
<https://vidyoportal.cern.ch/join/2TEK40xkzY>

If you want to join by phone, please use one of the phone numbers listed in the link below:  
<http://information-technology.web.cern.ch/services/fe/howto/users-join-vidyo-meeting-phone>  
and enter the meeting extension 10866953\*13288 in order to join.

10:00 → 10:20

**General News**


Orateur: Dr Steve Muanza (CPPM Marseille)

🕒 20m 

10:20 → 10:40

**ILC News**


Orateur: Claude Vallee (Centre de Physique des Particules de Marseille)

🕒 20m 

10:50 → 11:10

**News from Pixels & Electronics**

Orateur: Patrick PANGAUD (Aix Marseille Univ, CNRS/IN2P3, CPPM, Marseille, France)

🕒 20m 

## Next Meetings

- FCC-IS Kick-off Meeting, CERN, 9-13 November
- FCC Experiment & Physics Workshop, CERN, 9-13 November
- FCC-FR Workshop, Annecy, January 2021 (Accelerators, Detectors, Physics EX and TH)
- FCC General Meeting, Paris, April 2021