

# CPPM Marseille (contact S. Muanza)

People involved (committed to start working before end of 2020)

- S. Muanza (DR), M. Barbero (PU), P. Pangaud (IR), A. Habib (IR), M. Menouni (IR)

Activities, Goals etc...

- Physics fast simulation
- Discussions to prepare R&D on pixel detector

Physics interest,

- MC Generators
- Search for heavy charged Higgs boson decaying into  $W(-\rightarrow l\nu)+Z/h(-\rightarrow b\bar{b})$
- Optimisation of b-tagging performance (TBC, long term)

Algorithms interest, subdetector interest

- B-Tagging (TBC, long term)
- Pixel detector, readout electronics (monolithic sensors,  $\mu$ -electronics design small feature size)

Future R&D

- R&D on Depleted CMOS sensors for FCC-ee
- Possible interests in mechanics:
  - Micro-channel cooling
  - Sensor metrology (even under cryogenic conditions)
  - Precise and automated positioning and assembly

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## Context

- Some interest by ATLAS colleagues, but they are overbooked
- No expressions of interest by LHCb and Belle 2 colleagues so far
- Some interest in electronics and mechanics services

## DIALOG 2021

- Requested 6k€ (travels), under the ATLAS-CPPM request
- Including one M2 research trainingship