ECFA TF6 Calorimetry

Q1) What is the capability of constructing and testing prototypes in your country?

- LIP conceived and built several particle detection instruments used in fundamental science but also in applications to Health and Space exploration. We have a Mechanical Workshop and an Electronics Lab among the set of scientific infrastructures providing support to a body of laboratories for detector R&D - RPC detector Lab, Optical and Scintillating Materials Lab (LOMaC).

- LOMaC has contributed to the R&D, construction and quality control (PMTs, optical fibres and scintillators) of TileCal/ATLAS and with the development and construction of a laser calibration system.

- The capability to participate in future construction and prototype testing depends mostly on the availability of dedicated funding.

Q2) If limited, do you have access to networks that enable to integrate into prototype projects?

- We are members of the TileCal/ATLAS calorimeter group and we have contributed to the design, construction, upgrade, operation, control and calibration of this detector. We are interested in participating in international networks for scintillator-based calorimetry.

Q3) For the construction of large(r) devices: will/can construction be realised "in house" or is the tendency rather towards subcontracting?

- We have competencies and capacity for optical fibre mirroring by magnetron sputtering and quality control, including long-term collaboration with an Applied Cold Plasma and Thin Films technologies group.

- We collaborate with experts in Polymer and Composites science for the development of a scalable solution for the manufacturing of plastic scintillators with novel polymeric substrates.

- Concerning detector construction, we have conditions for the assembly and test of small prototypes.

Q4) Is work on instrumentation recognised for careers in your country?

- Currently, recognition in Instrumentation and fundamental Particle Physics research careers are at a similar level.

ATLAS-PT & LOMaC/LIP