



LIP Present and Future

Challenges and opportunities (2018-22)

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An ambitious scientific program

LHC High luminosity, COMPASS, SNO⁺, NEXT, DUNE, AMS, Auger, MARTA, LATTES, LZ, HADES and R3B (FAIR)

A new born Phenomenology group

bridging theory and experiment

A strong Computing group:

a close connection with the INCD

A long tradition in detectors developments

RPCs (international reference) and noble gas/liquid (DUNE?)

An expertise in imagiology and beam control

establish partnership with ICNAS and CTN (Hadron-therapy)

A continuous collaboration with ESA

move from short-term contracts to long-term missions

Consolidated research infrastructures

Services and R&D (medium term planning is needed)

Starting Competences centers

increase internal synergies, provide external services

Communication, Education and Outreach

LIPECO : “Vini,vidi,vinci” (but still much more to do ...)

BUT:

- An excessive dependence on FCT funding
- Too many researchers with short-term contracts
- Not strong enough connections with the outside world (Universities, research units, companies)

Particle and Astroparticle Physics

- LHC High luminosity : Detectors upgrades, Physics analysis
- PQCD : COMPASS and new experiment
- Neutrinos: SNO⁺ and DUNE
- Cosmic Rays : AMS, Auger, MARTA
- Gamma Rays : LATTES
- LHRHI : participation at GSI (Hades) and FAIR (R3B)
- Phenomenology