

IFAE

(INSTITUT de FÍSICA d'ALTES ENERGIES)
IN FIVE MINUTES

- IFAE is a Consortium between the Autonomous University of Barcelona (UAB) and the Department of Innovation, Universities and Industry (DIUE) of the Government of Catalonia.
- IFAE is an institution with its own "juridical personality".
- It can ask for, and manage, projects from regional, national and EU sources, and can hire its own personnel directly. This provides operational flexibility (and some problems).
- It is also a "University Institute" of UAB (IFAE personnel can direct theses, give courses...)

IFAE PERSONNEL

- Permanent staff: investigators, on Institute funds.
- Project Personnel: hired from project funds.
- Associated Personnel: UAB faculty, ICREA investigators.
- Graduate students: from UAB or from IFAE.

TWO DIVISIONS:

Experiment

Theory

Faculty

16

13

Engineers, technical

12

1

Postdocs

10

7

Doctoral students

19

13

Administrative

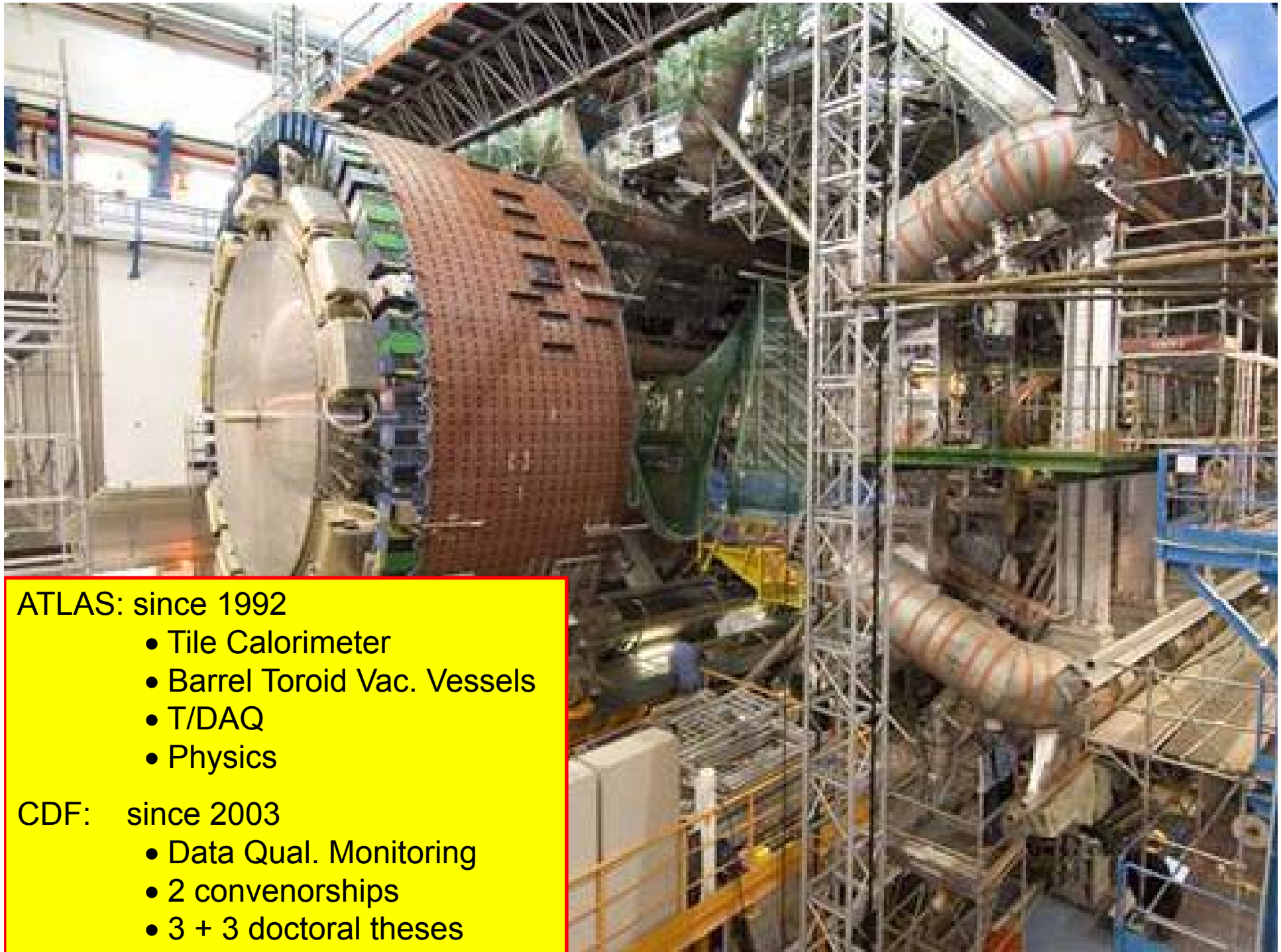
3

1

TOTALS

60

34



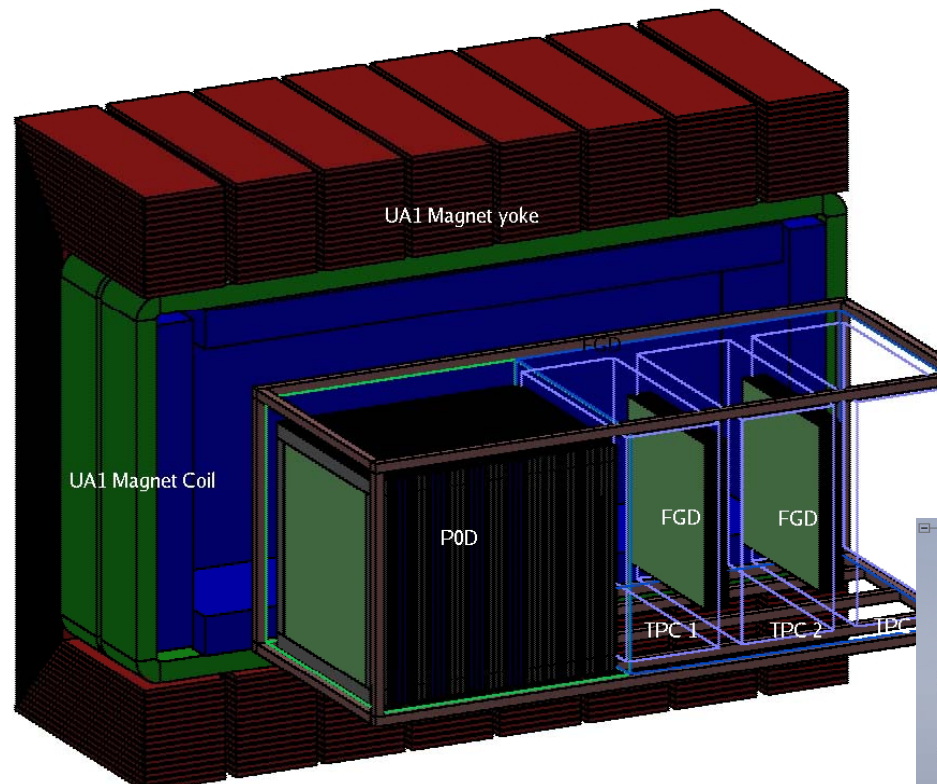
ATLAS: since 1992

- Tile Calorimeter
- Barrel Toroid Vac. Vessels
- T/DAQ
- Physics

CDF: since 2003

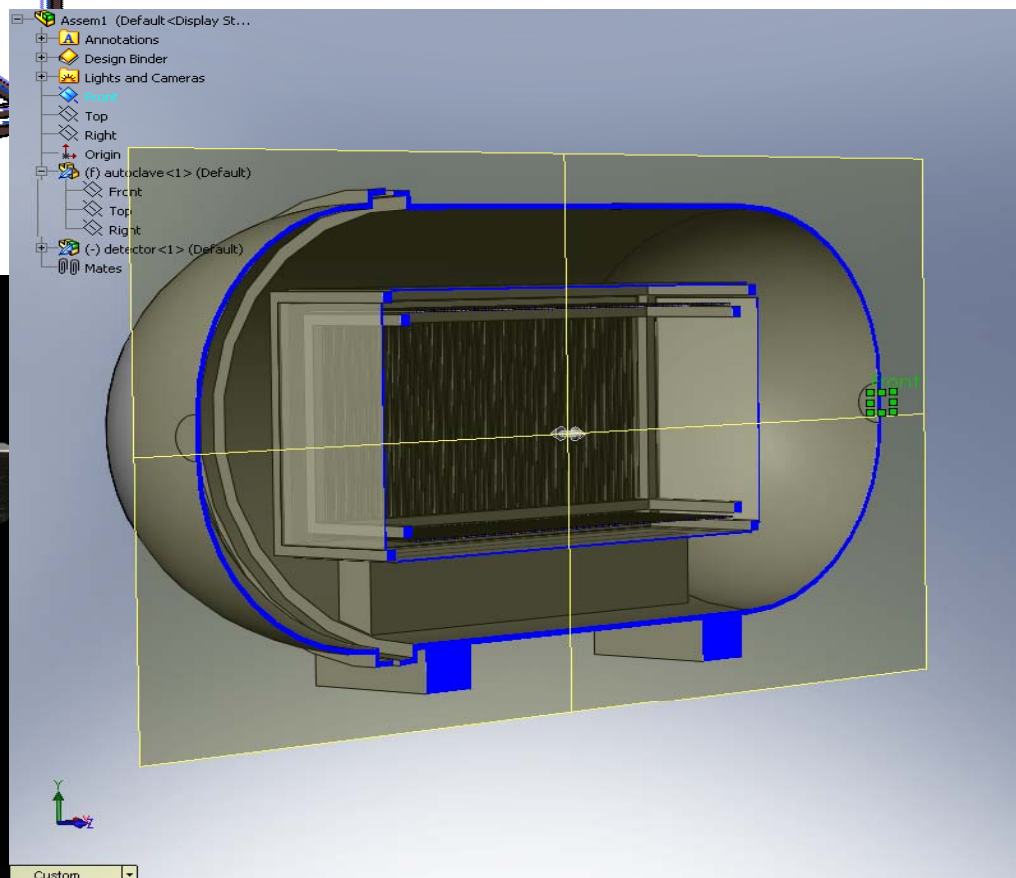
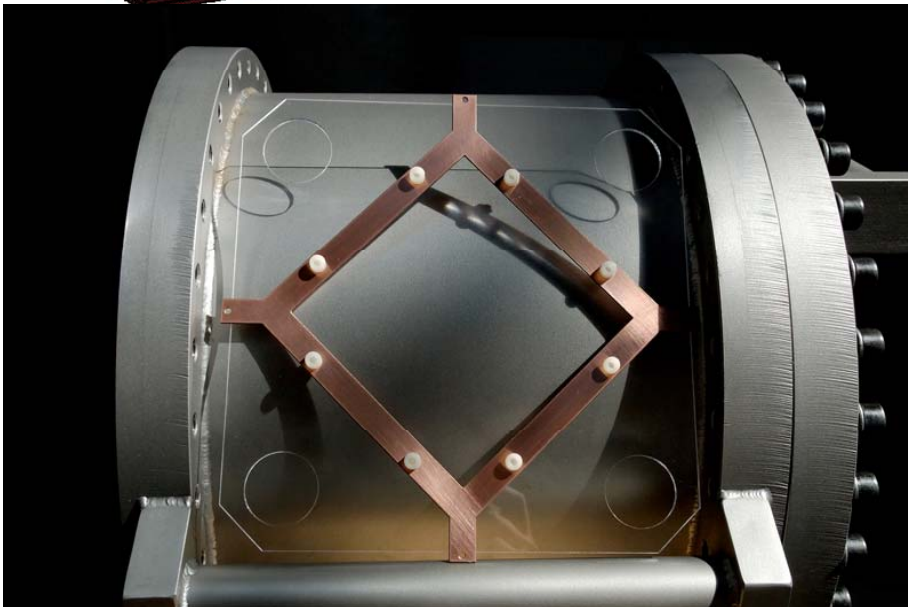
- Data Qual. Monitoring
- 2 convenorships
- 3 + 3 doctoral theses





Neutrino experiments: K2K, T2K, NEXT

- K2K: since 2002. SciBar event reco.
- T2K: near detector, R/O of TPC sensors
- NEXT: $2\beta 0\nu$ decay in high pressure Xe TPC. In Canfranc Underground Lab



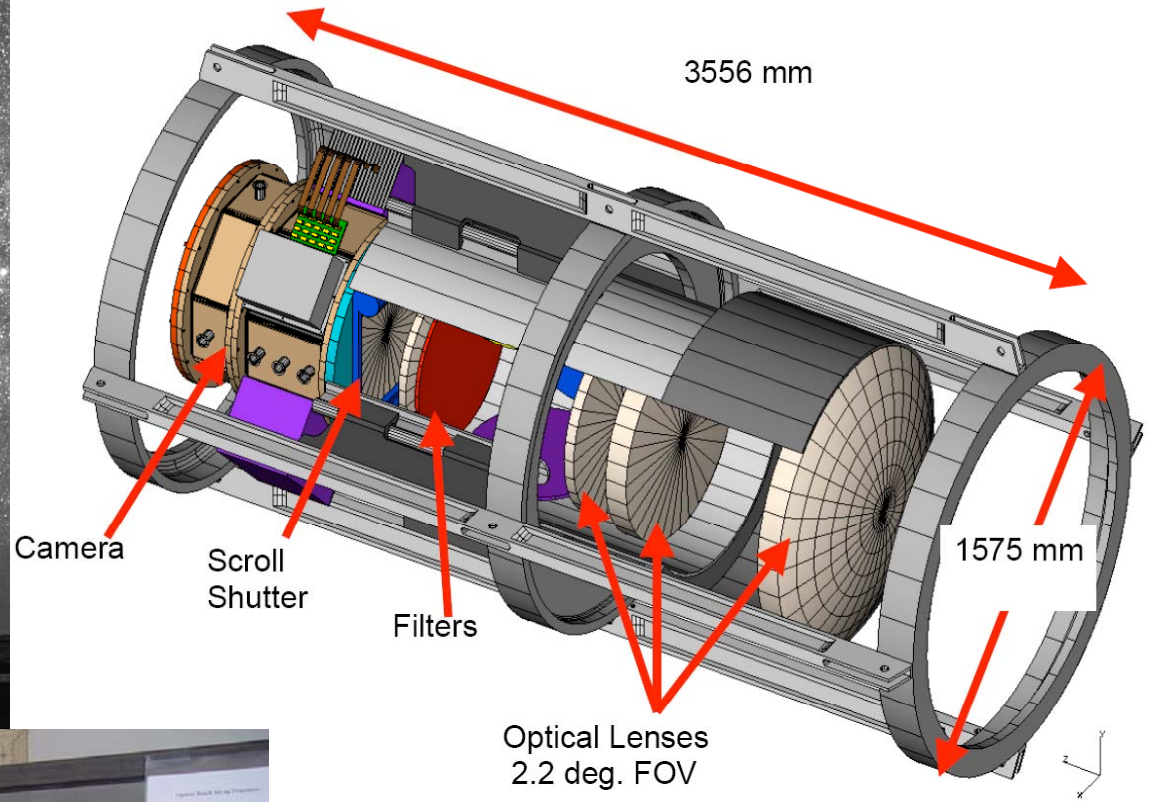
MAGIC, La Palma (Canarias): since 1997

- Telescope 1: camera, control, building
- Telescope 2: readout, DAQ,
- Several new sources, new emission phenomena... 3 papers in Science

CTA (future large European telescope array):

- Spanish coordination



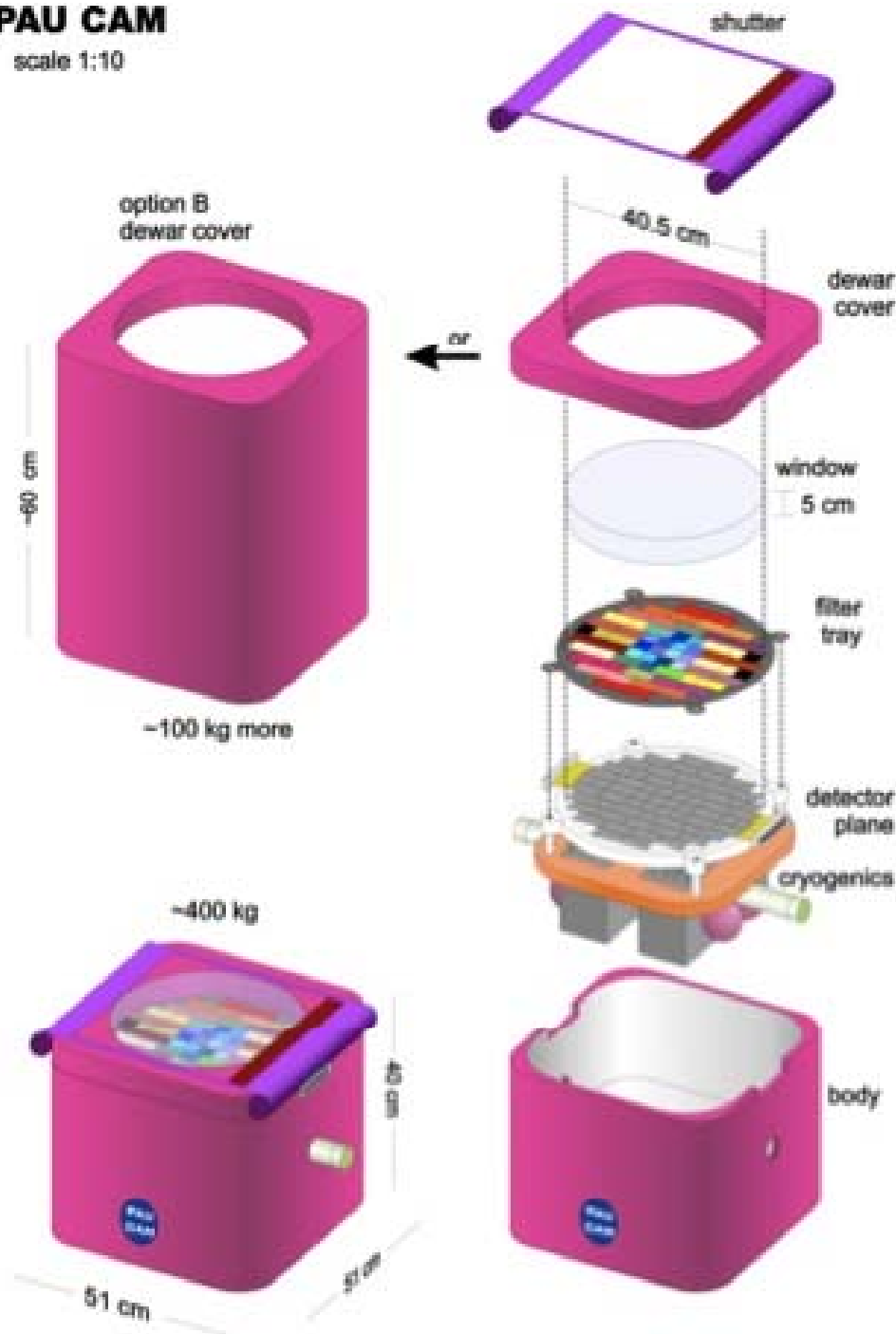


DES (Dark Energy Survey)

- Collab. w/ US, UK inst's, CIEMAT, IEEC
- New pixel camera for Blanco Telescope
- at Cerro Tololo, Chile
- will survey $3 \cdot 10^8$ galaxies, from 2011

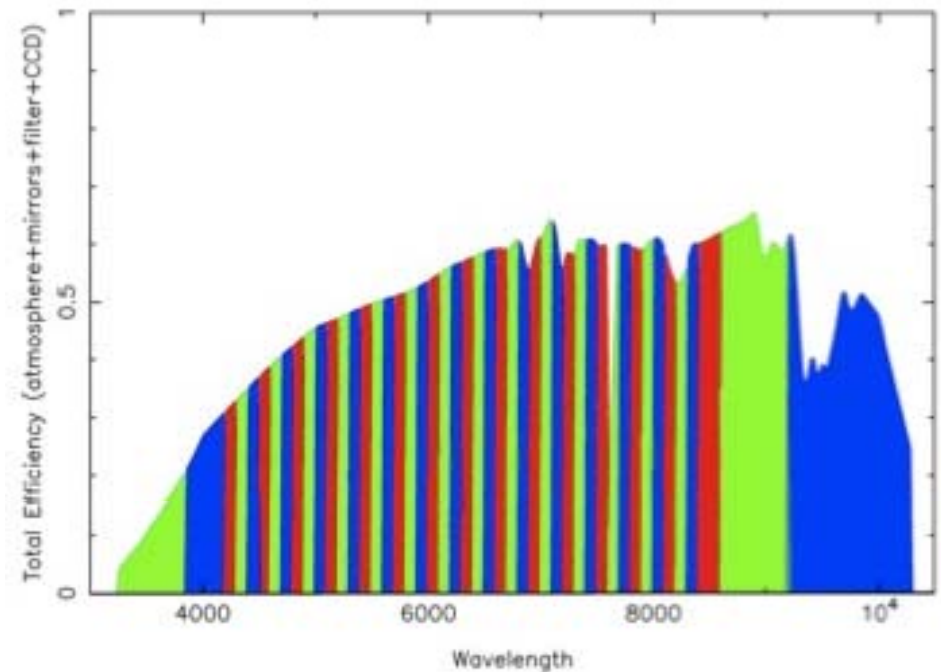
PAU CAM

scale 1:10



PAU (Physics of Accelerating Universe)

- CONSOLIDER project led by IFAE
- with several Spanish groups
- will build telescope in Teruel with novel technique to radially measure BAO scale
- will survey 8000 deg² in 4 yrs





**DIGITAL RADIOGRAPHY
and IMAGING APPLICATIONS**

- Synergy IFAE/X-Ray Imaging
- hi-res/ high contrast/ low dose
- 2 machines built
- 3 patents since 2002

