

Welcome to the Institut d'Astrophysique de Paris !

F. Bernardeau, director



DARK MATTERS 11-13 December 2017
Joe Silk's 75th Birthday

Membre des LabEx ILP et ESEP

The IAP in a few key numbers

Status : Unité Mixte de Recherche (UMR) 7095 : CNRS and Université Pierre et Marie Curie, on its own site.

Personnel : about 150 to 160 people

Scientists :

About 70 permanent staff in total, CNRS researchers and university and astronomers

Non permanent : about 25 PhDs and 30 + post-docs

Technical and admin personnels:

about 30

IAP, it is also a building of about 4000 m², 5 meeting rooms, a theater of 120 seats widely used in the community, a library and a stream of about 100 visitors / year;

Missions

Research in astrophysics and theoretical physics

Service Missions for the Astronomy-Astrophysics Community

Teaching

Outreach

Theoretical and observational cosmology

Inflationary physics ;
CMB physics with Planck and after Planck ;
The Large-scale structure of the universe:
observation, characterization, statistical
properties;
Dark energy

Intergalactic medium and galaxy evolution

Evolution and dynamics of the Galaxy
and the local group with GAIA
Galaxy physics and synthetic spectra

Extrasolar planets physics of discs;
exo-atmospheres:
detection of exasolar planets with micro-lensing
and radial velocity measurements ;

Fundamental physics and gravitation

The universe as a physical object
Nature of inflation ;
Dark matter, dark energy and
gravitational waves

High energy astrophysics

*The origin and physics of Gamma-ray
bursts*
Black hole physics and co-evolution of
galaxies and black holes
Line of sight absorbing lines



the « Planck » computer room at IAP that hosts our main computer facilities

ANO and projects at IAP

Planck DPC

IAP hosts one of the key center where Planck results were analyzed. Planck data are by far the richest window we have on the physics of the early universe.

Euclid

The next big project. It aims at mapping the large-scale mass and galaxy distributions through weak-lensing measurements and the construction of spectroscopic galaxy catalogues.

Terapix ("Traitement Elementaire, Reduction et Analyse des PIXels")

A data processing centre for the treatment of wide field visible and IR images.

SVOM

Participation in ground segment of space mission for GRB detection and analysis

Numerical simulations and Scientific Computation

A trans-disciplinary expertise

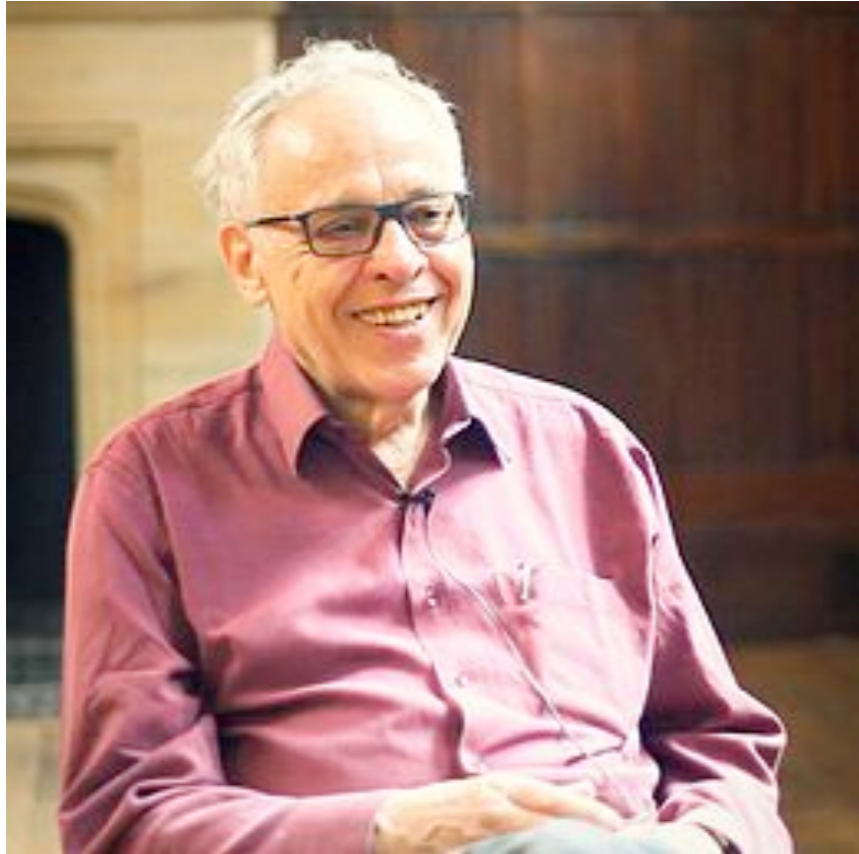
Synergy program in Theoretical Physics, High-Energy Astrophysics and Cosmology: the ILP LabEx

Institut Lagrange de Paris (2011-2019+): Laboratory of Excellence (Labex) whose mission is to advance foundational questions on the origin, constituents, dynamics, and fate of the Universe.

The Lagrange Institute (Institut Lagrange de Paris, ILP) unites research groups from the Université Pierre et Marie Curie (UPMC) and CNRS, mainly from the Institut d'Astrophysique de Paris, the Laboratoire de Physique Nucléaire et Hautes Energies, and the Laboratoire de Physique théorique et Hautes Energies with internationally recognized research programs in theoretical and observational cosmology, (astro-)particle physics, and theoretical and experimental high energy physics.

Rich program of PhDs, Postdocs and long term visitors

Joe @ IAP, it is



- an advanced grant of the European Research Council « Dark Matters »;
- countless workshops ; a weekly journal-club;
- a continuous stream of visitors;
- and a constant flow of new ideas...