

ORGANIZATION OF THE SCIENTIFIC ACTIVITIES

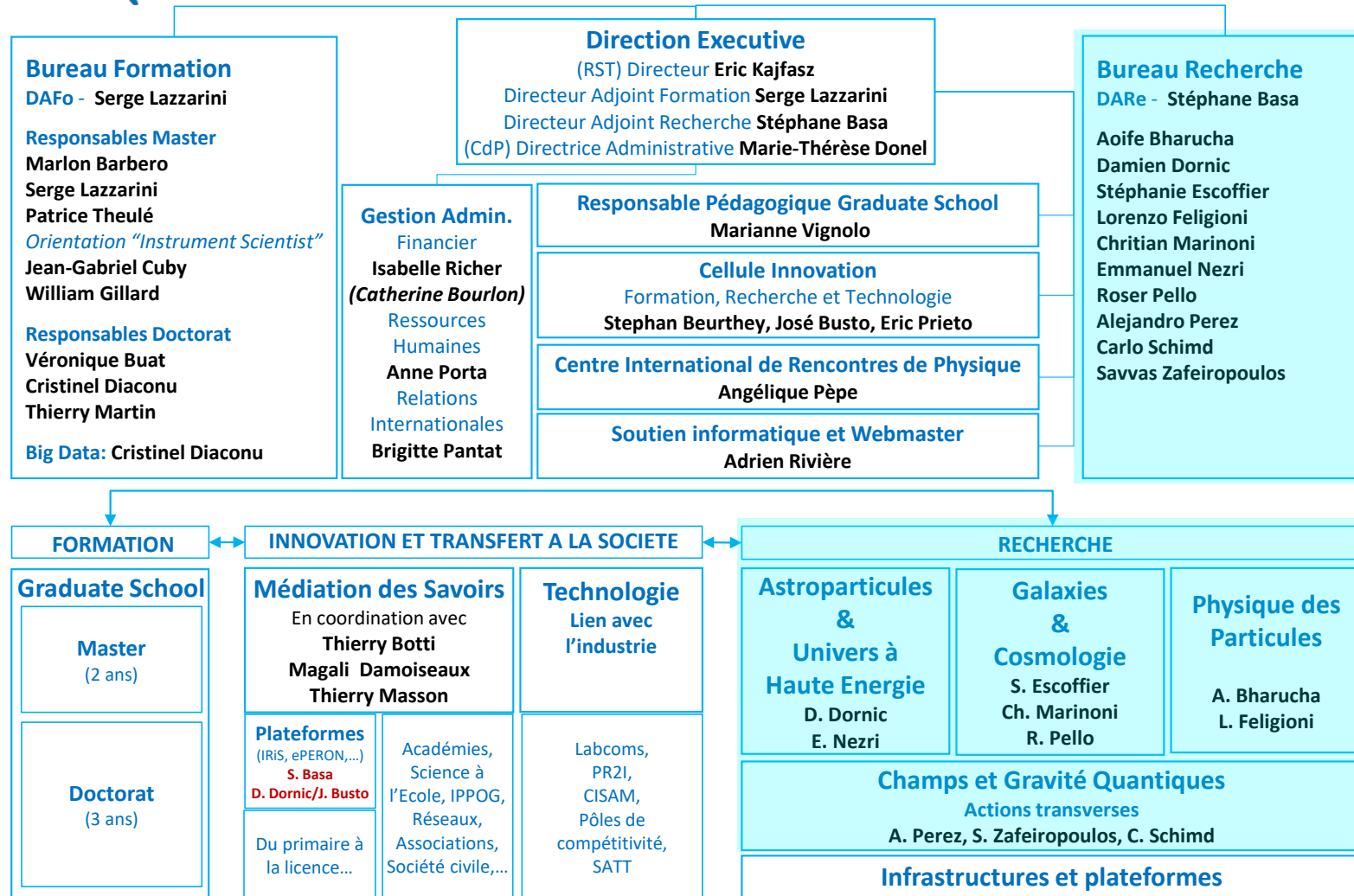
S. Basa





Organigramme fonctionnel

v20210101



MOTIVATION OF THE RESEARCH BOARD

The Research Board is here to motivate and help in the scientific animation of the 4 groups:

- An exchange space to share ideas and experiences, and to define actions (IPhU thematic days for example).
- A room to collect new requirements from the scientists to the IPhU Executive Board.
- A tool to develop communication tools requested by the groups.
- Etc.

ACTIONS CARRIED OUT

(1/2)

Meetings of the Research Board:

- 4 meetings held: February, March, May and September.
- Agenda and minutes available from <https://indico.in2p3.fr/category/900/>
- Several actions already carried out:
 - Setting up of mailing lists.
 - Collection of the scientific motivations of the members of each group.
 - Implementation of the Science pages on the IPhU website.
 - Proposition to have a regular Newsletter.
 - Etc.

THE MAILING LISTS

Strategic lists for research:

- iphu-board-of-directors@univ-amu.fr
- iphu-board-of-research@univ-amu.fr
- iphu-particle-physics@univ-amu.fr
- iphu-astroparticle-he-universe@univ-amu.fr
- iphu-galaxies-cosmology@univ-amu.fr
- iphu-theorie@univ-amu.fr

ACTIONS CARRIED OUT

(2/2)

Thematic days:

- First two topics proposed: Low mass resonances and LISA-Gravitation Waves.
- Given the context, organized by videoconference and recorded in order to allow the absent persons to follow the discussions (over half a day in order to keep a pleasant and dynamic format).
- Kind organizers:
 - Low mass resonances: Aoife Bharoucha.
 - LISA-Gravitation Waves: Delphine Porquet, Eric Kajfasz, Christian Marinoni and Alejandro Perez.

STILL TO BE DONE

Still need to set-up several tools to facilitate the discussion between scientists:

- Required tools:
 - A space to exchange documents and save minutes (Redmine?, Indico?, etc.).
 - A discussion forum (Slack?, Mattermost?, Rocketchat?, etc.).
- The AMU-IPhU web site is not adapted at all: too heavy management and must remain a vitrine of the institute.
- Ongoing discussion with CPPM, LAM and SIP (OSU-Pythéas) to see what they can propose (management must stay simple and convenient).

CALL FOR PROPOSAL

- REMINDER -

Motivation:

- The Call is meant to fund ambitious collaborative scientific and/or educational projects for possible small equipment and operating money. The available budget allows for 3-year full grants to hire PhD students (co-funding possible as long as the other source of funding is clearly identified and compatible with being managed by AMU).
- It covers also funding for the organization of conferences and hosting of visiting scientists.

The Call guidelines are the following:

- Scientific relevance (including realism of roadmap) and expected impact (national and international), together with matching the institute scientific perimeter and goals, will be primary selection criteria.
- Implementation of a genuine collaboration between teams of at least two labs of the institute will also be highly favored.
- The project proposal can span several years. In that case, an evaluation of the project is performed each year to validate the continuation of its funding by IPhU.

RESULTS CALL 2020

ID	PI name	Title	Leading Labs	Granted for 2020
002	stephane.basa@lam.fr	Operation of the Colibri robotic telescope	LAM, CPPM	12 000 €
006	Anton.Poluektov@cern.ch	Study of lepton flavour universality in the semileptonic decays of B mesons to excited charm hadrons at LHCb	CPPM, CPT; Univ. of Zurich	1 PhD student on "Searches for effects beyond the Standard Model in semileptonic decays of B mesons at LHCb" + 2 000 € for PhD environment
007	lorenzo@in2p3.fr	BSM Physics at the Terascale	CPPM, CPT; IFAC/L2C-LUPM; IFIN-HH Bucharest (CIVIS)	8 000 € + 2+6 month stays Bucharest->Marseille (limited to 16k€)
013	eric.jullo@lam.fr	Cosmology with Large Scale Surveys (CLASS)	LAM, CPPM, CPT; TETIS, IAP	1 PhD student co-directed btw CPPM and LAM on "Void lensing as a test of gravity in the DESI data" + 24 000 € (including 2k€ of IPhU PhD environment, and participation to eBOSS meetings of the 2 PhD students dedicated to eBOSS data analysis)
001	Samuel.boissier@lam.fr	The Low Surface Brightness universe: impact for galaxy evolution & cosmology	LAM with planned CPPM and CPT collab.	3-month visitor, Jin KODA, Stony Brook (limited to 11k€) with seminars given or courses taught at the graduate school

Statut
Budget partially used in 2020, remains postponed to 2021.
Student hired, remaining budget postponed to 2021.
Budget partially used in 2020, remains reported to 2021.
Student hired, remaining budget postponed to 2021.
Postponed to 2021

RESULTS CALL 2020

009	perez@cpt.univ-mrs.fr	John Bell Institute workshop "Black Hole Information Puzzle"	Quantum Field Theory and Quantum Gravity	2 000 € to fund participation of 1 or 2 PhD students to the workshop and explore the possibility of an off-site meeting in Marseille
010	coadou@cppm.in2p3.fr	School of Statistics - SOS2020	CPPM, CPT	Recurrent school on statistics for data analyses 2 000 €
012	marinoni@cpt.univ-mrs.fr	Progress on Old and New Themes in cosmology (PONT) 2020	CPT; CPPM, LAM	Recurrent conference organized in Avignon; 5 000 € with fees waived for IPhU members, and help to participation of PhD students and postdocs
014	triay@cpt.univ-mrs.fr	Theory of gravitation and variations in Cosmology International School	CPT, LAM	Thematic school organized at OHP; 5 000 € with fees waived for IPhU members, and help to participation of PhD students and postdocs
017	alain.blanchard@irap.omp.eu	The science of the next generation of large cosmological surveys	CPPM, LAM; IRAP, ...	Recurrent Summer school organized with CNES 5 000 €

Postponed to 2021

Organised in remote, budget not used.

Organized in dec 2020.

Postponed to 2021

Organized in August 2020.

PHD CO-FUNDING IN 2020

IPHU&ANR IA-IPHU

Allocation by ANR of 12 co-financing on the Artificial Intelligence call:

- 2 half grants allocated to IPhU: the rest of the co-funding comes from the Institute (had been budgeted).
- Selected topics:
 - « Development of artificial intelligence algorithms adapted to big data processing in embedded (FPGAs) trigger and data acquisition systems at the LHC ». Thesis director: Emmanuel Monnier
 - « Galaxy evolution and cosmic web with Deep Learning ». Thesis director: Stéphane Arnouts

NEXT CALL

The call for 2021 is still open.

Budget for 2021 should allow:

- **For the funding of expenses on the projects (small equipment, operations and/or missions) up to a total of about 90 k€** (max: about 10 k€ per project).
- **For the funding up to 3 full PhD students if AMIDEX agrees with our budget request for 2021 and beyond.**

Calendar:

- Closing of the call: January 20, 2021.
- Analysis of the applications: between February 1 and March 15, 2021.

JUST TO CONCLUDE

IPhU offers new financial and human resources and is there to reinforce our scientific activities and to promote new ones .

So don't be shy and don't hesitate to make new proposals, we are here to help and facilitate things!