

Research evaluation

FINAL RESUME ON THE RESEARCH UNIT: Institut de planétologie et d'astrophysique de Grenoble - IPAG

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES: Université Grenoble Alpes – UGA Centre national de la recherche scientifique - CNRS

EVALUATION CAMPAIGN 2019-2020 GROUP A

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In the name of Hcéres¹:

Nelly Dupin, Acting President In the name of the experts committee²:

Alessandro Morbidelli , Chairman of the committee

Under the decree No.2014-1365 dated 14 November 2014,

¹ The president of Hcéres "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, paragraph 5);

² The evaluation reports "are signed by the chairman of the experts committee". (Article 11, paragraph 2).

Institut de planétologie et d'astrophysique de Grenoble, IPAG, U Grenoble-Alpes, CNRS, Mr François-Xavier Desert



Tables in this document were filled with data submitted by the supervising body on behalf the unit.

UNIT PRESENTATION

Unit name:	Institut de planétologie et d'astrophysique de Grenoble	
Unit acronym:	IPAG	
Current label and N°:	UMR 5274	
ID RNSR:	201119432D	
Application type:	Renewal	
Head of the unit (2019- 2020):	Mr François-Xavier Desert	
Project leader (2021-2025):	To define	
Number of teams and/or themes:	7	

EXPERTS COMMITTEE MEMBERS

Chair:	Mr Alessandro Morbidelli, Observatoire de la Côte d'Azur – OCA, Nice
Experts:	Ms Marie-Christine Gonthier, IPSL (supporting personnel) Ms Magali Deleuil, Aix Marseille Université Mr Marc Ferrari, OSU Institut Pytheas, Marseille (representative of CoNRS) Ms Muriel Gargaud, CNRS Pessac (representative of CNU) Mr Patrick Hennebelle, CEA Gif-sur-Yvette Ms Christine Joblin, CNRS Toulouse Mr Alexandre Marcowith, CNRS Montpellier Ms Cathy Quantin-Nataf, Université Claude Bernard Lyon 1 - UCBL

HCÉRES REPRESENTATIVE

Mr Michel Marcelin

REPRESENTATIVES OF SUPERVISING BODIES

Mr Philippe Choler, Université Grenobles Alpes Mr Hervé Courtois, Université Grenobles Alpes Mr Olivier Lamarle, CNES (Partner) Mr Guy Perrin, CNRS



INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

IPAG was created on January 1st, 2011 from the merging of two laboratories: LAOG (Laboratoire d'Astrophysique de Grenoble) and LPG (Laboratoire de Planétologie de Grenoble). It occupies two premises (OSUG-A and OSUG-D) situated on the eastern side of the university campus, rue de la piscine.

Management team

The management team is composed of the director, the deputy director and the administrator. The team meets once a week for a "comité de direction opérationnelle". A "comité de direction élargie" includes the leaders of the scientific teams and meets every two weeks. The "Conseil de Laboratoire" (CdL, laboratory council) is a statutory body presided by the director. The council provides advice on all matters relating to scientific orientations, unit resources and budget, its organization and operation. The CdL convenes every 2 to 3 months. Other committees help in structuring the activity of the unit: "Commission Hygiène Sécurité Conditions de Travail", "Groupe d'Aide aux Doctorants", "Cellule d'Aide au Montage de Projets à l'IPAG" and "Cellule Qualité".

HCÉRES NOMENCLATURE

ST3: Sciences de la Terre et de l'Univers.

THEMATICS

The research themes explored at IPAG embrace the formation of planetary systems, from the initial phases of the core collapse, when molecular complexity builds up, through protostellar disk physics and chemistry, up to the study of exoplanets. IPAG also works on accretion-ejection processes around young stellar objects and compact objects (neutron stars, black holes). There is also a small sub-team active in cosmology, with a past strong implication in the Planck mission and now in the NIKA2 instrument at IRAM. In classic planetary sciences, IPAG also studies Sun-Earth interactions, planetary subsurfaces, small bodies in the solar system, and the chemical evolution of primitive matter.

IPAG activities include astronomical observations, but also laboratory measurements, high performance computing, as well as the design and operation of cutting edge instrumentation for space missions and ground-based telescopes, notably for the future European Extremely Large Telescope (EELT). IPAG technical expertise includes adaptive optics, integrated optics, interferometry, infrared detection, and radars on space probes to study the structure of Solar System bodies.

UNIT WORKFORCE

Institute for Planetology sciences and Astrophysics de Grenoble		
Active staff	Number 06/30/2019	Number 01/01/2021
Full professors and similar positions	15	10
Assistant professors and similar positions	14	9
Full time research directors (Directeurs de recherche) and similar positions	12	9
Full time research associates (Chargés de recherche) and similar positions	12	12
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	0
High school teachers	0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	30	30



Permanent staff	83	70
Non-permanent professors and associate professors, including emeritus	3	NA
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)	21	NA
PhD Students	33	NA
Non-permanent supporting personnel	14	NA
Non-permanent staff	71	NA
Total	154	70

GLOBAL ASSESSMENT OF THE UNIT

IPAG appears as a very strong laboratory, with a high scientific productivity and a great international visibility. It is mostly focused on planetary science in broad sense. This thematic unity, centered on stellar and planet formation and the evolution of matter in these environments, is a strength of IPAG, compared to other research units which are more dispersed over the various themes of astrophysics. A major strength of IPAG is the combination of instrumental development and R&D activities with observational research and theoretical modeling. Laboratory astrophysics activities complement this synergy.

IPAG is very well positioned for the instrumentation on future Extremely Large Telescopes. Furthermore, the use of cutting-edge ground based instrumentation is complemented by a strong involvement in space missions, not only from ESA, but also from NASA and JAXA.

The laboratory hosts an impressive number of ANR contracts and six ongoing ERC grants and has the leadership of one International Training Network. It manages one Labex (FOCUS), is part of another one (OSUG@2020), and is the leader of the Cross-Disciplinary Program "Origin of Life" supported by the Idex of the Université Grenoble Alpes, and of the CNRS interdisciplinary (80PRIME) project "EXploring Planet formation with lab ExpeRimenTS".

IPAG had 37 post-docs over the evaluation period, 22 of which are foreigners, and 75 PhDs, 50% of which coming outside of Grenoble.

Due to its success in gaining competitive grants and the national context in public research, IPAG faces new challenges that require a reorganization of the technical and administrative management. Its instrumental activity, which was focused mostly on one instrument (Sphere) before, is now engaged in multiple projects with consequent problems in sharing the resources. The load plan on the technical team has reached an unprecedented level whereas the number of engineers and technicians is decreasing. This requires to rediscuss the balance between commitment in projects and instrumental development. The identification of key transverse axes would help in establishing a priority plan. This would also strengthen the identity and excellence of the unit for the coming period.

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2 rue Albert Einstein 75013 Paris, France T. 33 (0)1 55 55 60 10

