



Lagrange Institute

ILP day

13 March 2014

Institut Lagrange de Paris

Framework and Goals

New Governemental Program for 2011 - 2019

Initiatives d'Avenir :

Laboratoires d'Excellence

100 LABEX selected

ILP one of the 39 best ranked proposals (A+)

ILP Funding : 7.5 M€ for 10 years

Framework

Changes since 2011:

Agence Nationale pour la Recherche (ANR) is the operating agency for the Initiatives d'Avenir (IDEX, LABEX, EQUIPEX, ...)

Creation of IDEX

Sorbonne – Universités

ILP is now a LABEX of Sorbonne - Universités

Agreement between ANR and Sorbonne Universités signed end of 2012

Rewriting and submission of a δ proposal

New budget: 2011 – 2019 : 7.5 M€

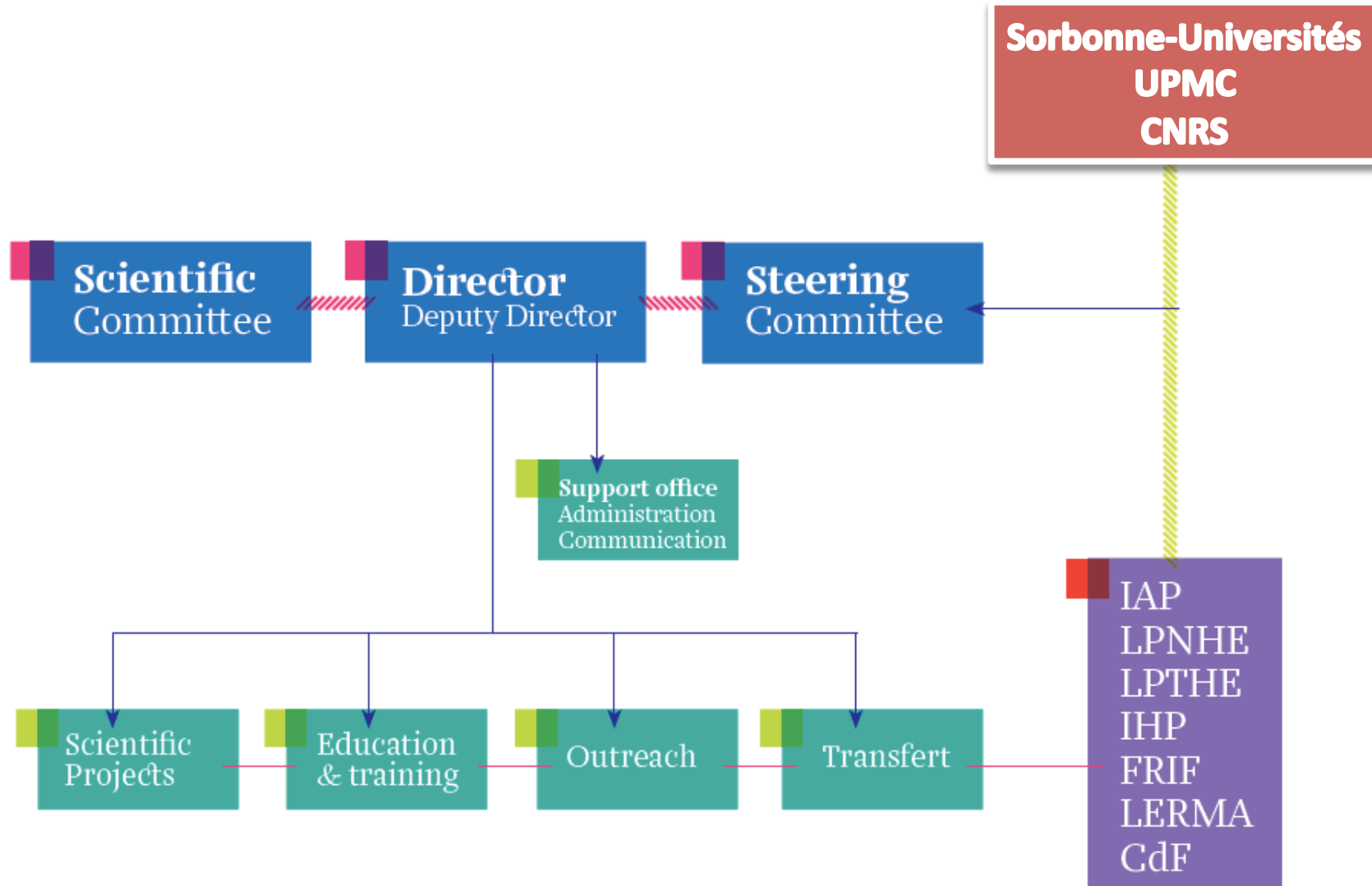
ILP is under the administrative control of CNRS,

Convention between Sorbonne – Universités and CNRS for funds transfer

Consortium agreement between parties signed

All conventions valid until end of 2015

New Organization



Steering Committee

External members

John Ellis

CERN

Julien.Lesgourgues

CERN

Jean-loup Puget

Académie des Sciences

Simon White

Directeur MPA

Catherine Cesarsky

Académie des Sciences

Viatcheslav Mukhanov

Université de Munich

Institutionnal members

Benoit Doucot

Directeur LPTHE

Francoise Combes

Responsable équipe LERMA

Reynald Pain

Directeur LPNHE

Gabriele Veneziano

Professeur Collège de France

Cedric Villani

Directeur IHP

Matteo Cacciari

Directeur FRIF,

Francis Bernardeau

Directeur IAP

Paul Indelicato

Vice président recherche UPMC

Nelly Lacombe

Sorbonne Université

Denis Mourard

DSA INSU

Laurent Vigroux

Directeur ILP

Benjamin Wandelt

Directeur adjoint ILP

Olivia Leroy

Project Officer

Scientific Committee

Matteo CACCIARI (LPTHE), Atish DABHOLKAR (LPTHE), Benoit DOUCOT (LPTHE),

Bertrand LAFORGE (LPNHE), Antoine LETESSIER-SELVON (LPNHE), Pierre ASTIER (LPNHE),

Patrick PETER (IAP), François BOUCHET (IAP), Yannick MELLIER (IAP)

Benoit SEMELIN (LERMA)

Jean-Philippe UZAN (IHP)

Gabriele Veneziano (CdF)

Joe Silk (IAP, ERC Dark)

Robert CAHN (Lawrence Berkeley),

Licia Verde (ICC)

Laurent VIGROUX, Benjamin WANDELT

2011 – 2012 activity report submitted to ANR

14 March 2013

Main problem: list of publications

Not always easy to disentangle ILP and normal laboratory publications

Proper acknowledgement of ILP support not always done

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Proper acknowledgement of ILP support not always done

"This work made in the ILP LABEX (under reference ANR-10-LABX-63) was supported by French state funds managed by the ANR within the Investissements d'Avenir programme under reference ANR-11-IDEX-0004-02."



Activity report

Part 1 + 2

- Summary
- Budget and manpower Status report
- Activity report
- Socio-Economic impact

Part 3

Tables and indicators

Volet 3 - Indicateurs

(toutes les données sont renseignées en année civile)

RECONNAISSANCE SCIENTIFIQUE

	ERC	IUF	PES
Nombre de financements pour les années n-3 à n	2	0	
dont pour l'année n	2	0	

Il s'agit des distinctions accordées chaque année aux enseignants-chercheurs et chercheurs intervenant dans le périmètre du Labex ; 'on compilera : (i) pour l'ERC les starting grants, consolidator grants et advanced grants, (ii) pour l'IUF les juniors et les seniors et (iii) toutes les primes d'excellence scientifique

PUBLICATIONS

Année	Nombre de publications dans des revues internationales	Nombre de monographies, d'ouvrages collectifs, d'actes...
n	165	0

On recensera les publications et ouvrages où le Labex est spécifiquement mentionné

ETUDIANTS EN MASTER ET DOCTORANTS

Année	Nombre d'étudiants en Master *	Nombre de thèses en cours dans le Labex **	Nombre d'étudiants formés (calcul automatique)	Nombre de thèses en cours financées par le Labex	Nombre de thèses soutenues dans l'année***
n	6	65	0	6	10

* Il s'agit du nombre d'étudiants pour lesquels le Labex constitue un support de formation

** il s'agit du nombre de thèses en cours sur les thèmes du Labex, que le financement de ces thèses soit assuré par le programme Investissements d'avenir ou par d'autres sources

***pour le « nombre de thèses soutenues », on recensera le nombre total, en fin d'année civile, de thèses soutenues sur les thèmes du Labex, financées ou non par le programme Investissements d'avenir

VALORISATION ET RESSOURCES PROPRES

Nombre de brevets déposés dans l'année	Montant des ressources engendrées par la PI (en k€) (cet indicateur sera automatiquement renseigné à partir du volet financier)	Montant des ressources propres (hors PI, en k€) (cet indicateur sera automatiquement renseigné à partir du volet financier)
0	0	0

POUR INFORMATION: des données sur les publications seront recueillies par d'autres instances que l'ANR. Exemples non exhaustifs :

Lauren - Nombre de publications référencées dans les bases de données internationales (données recueillies par l'OST)

2013 activity report due to ANR

3 April 2014

Contributions from the different groups have been requested

Should be sent to Olivia Leroy as soon as possible

PhD awards

2014

- **Matej PAVIN** « Precision measurements of neutrino oscillation parameters » sous la direction de Boris POPOV du 01/10/14 au 30/09/17
- **Oscar de FELICE** « Flux vacua in heterotic and type II strings : properties and applications » sous la direction de Dan ISRAEL et Michela PETRINI du 01/10/14 au 30/09/17
- **Caterina UMILTA** « Improving the Planck cosmological results with component separation » sous la direction de Karim BENABED du 01/10/14 au 30/09/17

2013

- **Frédéric DREYER** Jet substructure at the LHC Sous la direction de Matteo CACCIARI et Gavin SALAM du 01/10/13 au 30/09/16
- **Rebeka BIERI** « Where are the baryons? » sous la direction de Gary MAMON et Joseph SILK du 07/10/13 au 06/10/16
- **Clotilde LAIGLE** « Galaxy evolution at high redshift » Sous la direction de Christophe PICHON et Henry JOY McCracken du 01/10/13 au 30/09/16

2012

- **Teresa BAUTISTA** « Aspects of quantum gravity » sous la direction de Atish DABHOLKAR, du 01 janvier 2013 au 31 décembre 2016
- **Ayan MITRA** « Gravitational lensing » sous la direction de Delphine HARDIN, du 15 janvier 2013 au 14 janvier 2016
- **Mathieu CHRETIEN** « High Energy Gamma Astronomy » sous la direction de Julien BOLMOND, du 10/09/2012 au 09/09/2015

postdoc positions.

More than 200 applicants each year

2014 selection

Eleonora Di VALENTINO CMB, Planck

Mariangela SETTIMO Auger

Eirik Eik SVANES String compactification

4th post-doc to be selected

2013 selection

Paolo FRANCAVILLA: Higgs Physics

Robert ZIEGLER High energy theoretical physics

Michele LEVI, primordial cosmology

Moritz MUNCHMEYER, CMB analysis

2012 selection

Yi MAO, Dark Matter Cosmology

Ioana MARIS, Measurement of the Ultra High Energy cosmic ray flux

Sébastien RENAUX-PETEL, Non standard model in inflation »

ILP fellow Status

Comes with funding support for research (travel, workshops and colloquia, laptop,...). The funding is given to the host lab.

Some ILP fellows, PhD or post-docs change status after their selection as ILP fellows

Post-docs get new contracts, but are still working for the ILP

PhDs get other funding supports (e.g. AMX or AMN)

It is clear that they keep their privileges of ILP fellows as well as the funding resources from the ILP to support their research activities

Chair Lagrange

2013 awards

First award to Tom Abel *Department of Physics, Stanford University.*

Tom Abel has visited ILP (IAP) May to July 2013. Next visit in October 2014

Second Award to Tsvi Piran (*Racah Institute of Physics, Jerusalem*)
Will come in September – October 2014

2014 awards

Shinji Mukhojama *Kavli Institute for the Physics and Mathematics of the Universe,
University of Tokyo*

Rennan Barkana, *School of Physics and Astronomy Tel Aviv University*

Both will come in 2015

Visitors

Visiteurs à l'IAP

2013 - environ 15 mois pour 21 personnes

2011-2012 - environ 8 mois pour 10 personnes

Visiteurs ILP au LPNHE

2013 - environ 2-2,5 mois pour 4 personnes

2011-2012 - environ 3-3,5 mois pour 5 personnes

Visiteurs ILP au LPTHE

2013 - environ 11,5-12 mois pour 23 personnes

2011-2012 - environ 3 mois pour 17 personnes

2013 support to colloquia and summer schools

The Origin of the Hubble Sequence

IAP 75th Anniversary conference: June 24-28, 2013

2013
IAP 75
XXIX^e IAP Colloquium

Early registration deadline: March 15th

Confirmed key speakers:

R. Abraham, R. Bender, J. Binney, S. Charlot, F. Combes, R. Davies,
V. De Lapparent, A. Dökel, J. Devriendt, Y. Dubois, D. Elbaz, R. Ellis,
M. Fall, M. Franx, R. Genzel, C. Grebel, M. Haehnelt, O. Hahn,
L. Harquist, S. Kaviraj, R. Kennicutt, D. Kereš, J. Kormendy,
M. Lehnert, S. Lilly, P. Madau, J. Ostriker, D. Pogosyan,
C. Porciani, J. Silk, E. Scannapieco, M. Steinmetz,
R. Teysseier, M. Volonteri, S. Yi

SOCh:

R. Abraham
R. Bender
S. Charlot
F. Combes
J. Devriendt
Y. Dubois (co-chair)
D. Elbaz
M. Franx
M. Haehnelt
D. Le Borgne (co-chair)
M. Lehnert
S. Lilly
M. Pettini
C. Pichon (chair)
D. Pogosyan
J. Silk
M. Steinmetz
R. Teysseier
M. Volonteri
S. Yi

LOC:

V. Bona
Y. Dubois
S. Charlot
S. Codis
R. Gavazzi
D. Le Borgne
M. Meussens
S. Peirari
C. Pichon
B. Somelini
J. Silk
T. Sousbie
J.F. Sygnet
C. Weiler

GOALS

Stimulate discussions between
observers and theorists on our current
understanding of the origin and evolution of the
Hubble sequence (galaxy morphology), with an emphasis
on the respective roles of cosmic environment versus feedback.



Institut d'Astrophysique de Paris: 98 bis boulevard Arago 75014 PARIS
conferenceIAP2013@iap.fr www.iap.fr/col2013

Expanding mutually beneficial interface
between experiments exploring forward
physics at the LHC, the highest energy
cosmic ray physics and QCD

QCD dynamics at the LHC and Super-High energy cosmic rays

Paris 14-17 May 2013



Organizing committee

Y. Dokshitzer (LPTHE)
I. Maris (LPNHE)
M. Strikman (Penn State)

QCD at Cosmic Energies-VI

at Vigroux

100^e ÉCOLE D'ÉTÉ DE PHYSIQUE des HOUCHES



POST-PLANCK COSMOLOGY

JULY 8th – AUGUST 2nd 2013

COURSE LECTURERS

- Andreas Albrecht (Davis) *Problems and conceptual difficulties with inflation*
- Francis Bernardeau (CEA, Saclay) *Large Scale Structure theory*
- François Bouchet (IAP, Paris) *Cosmological results from Planck*
- Cliff Burgess (McMaster) *The cosmological constant problem*
- Robert Caldwell (Dartmouth College) *Models for dark energy*
- Paolo Creminelli (ICTP) *Non-Gaussianities*
- Justin Khoury (U. Pennsylvania) *Modified gravity and cosmology*
- Andrei Linde (Stanford) *Inflationary cosmology*
- Will Percival (Portsmouth) *Large Scale Structure observations*
- Pascal Pralavorio (CPPM) *Particle Physics and Cosmology*
- Joe Silk (IAP & Oxford) *Dark matter direct and indirect detection*
- Eva Silverstein (Stanford U.) *Early cosmology and high energy physics*
- David Spergel (Princeton) *Small scale CMB experiments*
- Romain Teysseier (ETH, Zürich & CEA, Saclay) *Numerical simulations*
- Ludovic Van Waerbeke (U. Victoria) *Weak lensing*
- Neil Weiner (CCPP, New-York) *Dark matter theory*
- Michael Wood-Vasey (Pitts) *SNIa observations*
- Matias Zaldarriaga (IAS, Princeton) *CMB theory*

SEMINAR SPEAKERS

- Gravitational waves* Alessandra Buonanno (University of Maryland)
- SNIa progenitors* Wolfgang Hillebrandt (MPA, Garching)
- Supergravity and cosmology* Renata Kallosh (Stanford)

ORGANIZING COMMITTEE

- Cédric Deffayet (APC, Paris)
- Patrick Peter (IAP, Paris)
- Benjamin Wandelt (IAP, Paris)
- Matias Zaldarriaga (IAS, Princeton)
- Francis Bernardeau (CEA, Saclay)
- Dick Bond (CITA, Toronto)
- Rob Caldwell (Dartmouth College)
- Adam Riess (STScI)
- Joe Silk (IAP & Oxford)
- George Smoot (APC, Paris)
- David Spergel (PCTS, Princeton)

SCIENTIFIC COMMITTEE

The registration fee is 1500 Euros including full board and lodging (we can give financial aid to a limited number of students).
Applications should be sent to houches100@ujf-grenoble.fr before March 1, 2013 to be considered by the selection committee.

ÉCOLE D'ÉTÉ DE PHYSIQUE THÉORIQUE

La Côte des Chavants - 74310 LES HOUCHES, France

<http://www.houches2013.iap.upmc.fr>

Les Houches is a village located in Chamonix valley, in the French Alps. Established in 1951, the Physics School is situated at 1150 m above sea level in natural surroundings, with a breathtaking view of the Mont-Blanc range. A quiet place, ideal for intellectual activity. Les Houches Physics School is affiliated with Université Joseph Fourier and Institut National Polytechnique de Grenoble, and is supported by the Ministère de l'Éducation Nationale et de la Recherche, the Centre National de la Recherche Scientifique (CNRS) and the Direction des Sciences de la Matière du Commissariat à l'Énergie Atomique (CEA/DSM). This school is also supported by the Institut Lagrange de Paris (ILP) and the Université Pierre et Marie Curie (UPMC). Director: Leticia Cugliandolo Phone: +33 4 50 54 40 69 Fax: +33 4 50 55 53 25 <http://houches.ujf-grenoble.fr/>



2014 selection

Workshops, seminars, colloquia

- The Primordial Universe after Planck – September 2014 (5days)
IAP / International conference organized by J. Martin and F. Bouchet
25 k€
- Magnetic fields from the Sun to blackholes - In memory of Jean Heyvaerts fall 2014, IAP / International Colloquium organized by C. Pichon
3 k€
- Supernova cosmology with Subaru – June 10-13, 2014 , LPNHE / Workshop
15 k€
- International Conference Planck 2014 – May 26-30, 2014
LPTHE / International Conference organized by Karim Benakli
5 k€

Summer school

Thematics School: « CCD image sensors » LPNHE

5 k€

Next call for proposals

Long term visitors (≥ 3 months)

Colloquia

workshops

Summer or winter schools

Additional Support for scientific activities of PhD students and post-docs

Additional support for participation of ILP members to workshops and colloquia

Additional visitor program

Proposal deadline: 23 May 2014

Decision by Scientific Committee early June 2014

The good

Good spirit in the scientific committee: Decision for the best of ILP, not for the best of each parties
Very good visibility of the post-doc calls
High support for summer schools (les Houches 2013), and colloquia
Strong visitor program
Visible activities in teaching

The bad

difficulties with the PhD calls
Lack of common activities at the level of ILPs
Lack of international opening
Difficulties with the Chair Lagrange

And The ugly

Lack of flexibility of French administration and “mille feuilles administratif”
Uncertainty on the 2016 - 2019 funding.

Topics for the discussion

How to improve transverse (ILP) activities ?

common seminar ?
retreat ?

How to develop international collaboration ?

Kavli Institutes
Brazil Institutes
Munich, Cambridge, and Oxford (etc) Campus

What do we do toward an international master based on ILP expertises ?

How could we develop fund raising ?