

MINUTES of the COPIN-IN2P3 Joint Committee Meeting

held on Friday, January 16th, 2015

at the CNRS Headquarters in Paris

Participants:

From COPIN:

M.JEZABEK - Director of IFJ PAN Krakow

A.MAJ - IFJ PAN, Chair of COPIN

A.GOZDZ – UMCS Lublin

J.JASTRZEBSKI – HIL Warsaw

K.RUSEK – Director of SLCJ Warsaw

From IN2P3:

J.MARTINO – Director of IN2P3/CNRS

D.GUILLEMAUD-MUELLER – Scientific Vice Director of IN2P3/CNRS

S.SPYROU – Head of the IN2P3 International Office

L.LAURENT – Legal officer, IN2P3

1. IN2P3 scientific activity and status of funding

In 2015, the level of human resources for IN2P3 will be maintained: 10 researchers and ~20 engineers and technicians will be recruited. Nevertheless, the financial resources will be reduced: the resources used for the functioning of the labs shall remain at the same level, the major decrease affecting the scientific projects. In consequence, this situation affects the international collaborations, with consequences on the number of days attributed to the IN2P3-COPIN collaboration.

The IN2P3 scientific top priorities are as follows:

- Particle Physics: LHC
- Nuclear Physics: GANIL/SPIRAL1 and SPIRAL2. The budget to run the accelerators will be shared between the two.

IN2P3 is installing the phase 1 of SPIRAL2 and a working group has been settled to see if, around 2020, the phase2 of the project will remain competitive.

- Hadron physics: ALICE (LHC) and JLab
- Astroparticle physics & Cosmology: full effort on finalizing VIRGO & wish to strengthen the IN2P3 participation in LSST, which is the main track in cosmology, but participation also in EUCLID

The IN2P3 activity continues in AMS, as well as in T2K and Double Chooz.

Concerning the neutrinos, IN2P3 keeps a very interested eye on oscillation experiments both in the USA and in Japan.

An involvement in JUNO (China) could be the next step.

A small participation is also maintained in STEREO, as this project has been supported by the ANR (the French national research funding agency).

IN2P3 continues to participate in AUGER but needs to see whether the researchers interested in this project are numerous enough; if not, it might withdraw in about 2 years from now.

SuperNEMO as well as experiments on double beta decay are being run in parallel.

Experiments on dark matter in Modane & in Gran Sasso, but soon some decisions on what to continue will have to be made.

- Accelerators:

The generic R&D is focused on hadron acceleration (RFQ, SPIRAL, high intensity frontier for protons, ion sources), which involves GANIL, ESS, maybe high intensity for MYRRHA, XFEL and preliminary studies for LCC and ILC.

Involvement also in ELI-NP, which activity is mainly related to the Fabry–Pérot cavity for the production of the gamma beam. This is under development in the LAL laboratory (Orsay), within the ThomX project. A future involvement in Bucharest is still under discussion.

- Computing: lots of effort in supporting this domain

- Detectors: organised in a network and coordinated to avoid having the same R&D developments in more than one labs.

We are getting positive indications from thorium experiments.

In 2015, an effort will be made to structure the activity on nuclear data, in order to provide the necessary missing data for simulations. The nuclear data activity also benefits from the neutrino information, which might provide help in characterizing the reactors.

In conclusion, there is nothing really new compared to last year and the long-term visibility and scheduling is difficult to have.

2. COPIN scientific activity and status of funding

A.MAJ - General information:

COPIN (a consortium of 10 polish institutions) extends. In addition to the existing agreement with IN2P3 and with GANIL (LIA COPIGAL), the ECT* agreement and, then, an agreement, on June 28th, 2014, with INFN on nuclear physics & accelerator techniques, have been signed in addition to some smaller agreements.

The polish roadmap has been updated in 2014: SPIRAL2, FAIR, XFEL, ESS and CCB (Cyclotron Centre Bronowice) at IFJ PAN are included. FAIR and XFEL receive funding from polish government, but not SPIRAL2; it is, nevertheless, important to be on the roadmap in order to obtain other grants.

IFMIF/ELAMAT: a bottom-up neutron experiment is born for which preliminary scientific work will take place at Rzeszow in the east part of Poland, which is an emerging technological site.

Many conferences have been taken place in Poland in 2014. In 2015, 4 large conferences will take place: The Epiphany conference in Krakow (January), the Mazurian lake conference in Piaski (September), the COMEX5 conference in Krakow (September) and the Theory Workshop in Kazimierz (September).

M.JEZABEK

Particle Physics is concentrated on experiments restarting soon, such as LHC (all four experiments), and on T2K. There are also discussions on the participations in long baseline projects in the USA or in Japan, so it seems that IN2P3 and COPIN are on the same priorities.

Plans for the future:

The COPIN participation in accelerators is not yet fixed but many scientists are interested in ILC. The participation in the XFEL construction could be the starting point of the ILC construction. In this case, it will probably be reasonable for the EU member states to discuss on a common participation, as it is better to have a common coordinated approach.

A central issue is the LHC upgrade in four years which will be very expensive.

For CTA, there is no grant for the moment. The project is on the roadmap, but the funds are very limited. There is at this moment a prototype of a small telescope in Krakow and collaboration for a medium telescope in Berlin.

XFEL: participation in the budget by 2%; end of the construction phase in ~1.5year

ESS: 2% participation in the construction budget. The decision has been taken at the government level, which secures the funding. Poland will soon apply formally to become member of the ESS ERIC.

Construction of the Cyclotron Centre Bronowice at IFJ PAN, composed of a 230 MeV proton cyclotron, an experimental hall, a therapy room for eye treatment and 2 rooms with gantries for whole body treatment.. Therapy is already performed with the existing cyclotron: 50 persons per year are treated for the eye at this moment, but this number can go up to 100. From the end of this year, when the new cyclotron with treatment rooms will become operational, up to 800 patients per year are expected and there might be the first patients this year. The researchers are collaborating with medical doctors from oncology centres. The specificity of this centre is the experimental hall with the beam line. An international advisory committee has been constituted to provide guidance.

K.RUSEK:

Poland possesses also a Heavy ion cyclotron in Warsaw, so heavy ions can be accelerated.

There are ongoing experiments in fundamental nuclear physics, in biology and in dosimetry.

A new ion source has been installed, so many scientists from other countries wish to go (from GANIL, Saclay...)

Concerning medical applications, Poland owns a radiopharmaceutical production centre and has signed an agreement with a private company who started the production in 2014.

Isotopes for therapy are also produced.

In low energy nuclear physics, there are interesting exchanges with scientists from France who have attended conferences in Poland.

A Szymanski prize for young (up to 41 years old) theorists and experimentalists has been instituted; the next call will be published soon.

J.JASTRZEBSKI:

There is not yet any scientific group working on medical imaging, but for the production of radiopharmaceuticals there are many contacts with nuclear chemistry labs.

The collaboration with France is mainly with GANIL (G. de France). Collaboration with IPN Orsay is under discussion. There is not yet any collaboration with Arronax but the polish side is thinking of it.

Concerning CERN, there are ongoing discussions with the ENLIGHT project which has a large program on medical applications but funds are missing. The project would wish that CERN members add 1% to their usual contribution for this domain, as CERN has an important human capital to support this activity.

A.GOZDZ:

Low energy physics activities in 3 cities (Warsaw, Krakow and Lublin), but the human resources are diminishing and there is no replacements of retirements.

There is a conference at the end of September for theorists in Kazimierz, but experimentalists are also invited. This conference has been first organised between Poland and France 23 years ago.

3. The realization of the exchange programme in 2014

In 2014, the days attributed have not been fully used from both sides. A problem polish researchers are facing is the prices for hotels in France which are very high in comparison to the reimbursement of their subsistence costs by CNRS. Unfortunately, CNRS cannot modify this situation as it is a question of national regulation applying in the same way to CNRS personnel. There was noted that the reimbursements take very long time (reaching 2 months in a few cases).

In Poland, there is still a lump-sum that can be provided for the subsistence costs of the French researchers at their arrival to Poland.

The requests for 2015 are very optimistic.

The Joint Committee has decided to allocate, for 2015, **504 days** for IN2P3 scientists in Poland (including 30 days placed in reserve) and **460 days** for COPIN scientists in France (including 10 days placed in reserve).

The days allocated to each collaboration in 2015 as well as the days used in 2014 are shown in the table below.

2015 EXCHANGES

Collaboration		Theme	IN2P3 Spokesman	COPIN Spokesman	COPIN scientists in France			IN2P3 scientists in Poland		
					use/attr. 2014	NAME	Attribution (in days)	use/attr. 2014	NAME	Attribution (in days)
04-111	Orsay (IPN) Cracovie (SIP)	Leptons in p pion-induced reactions with HADES	RAMSTEIN	SALABURA	17/21	P.SALABURA W.PRZYGODA J.BIERNAT	18	10/14	B.RAMSTEIN E.ATOMSSA	16
04-113	Strasbourg (IPHC) Lublin (IPMCSU)	High-Symmetry point groups in nuclear structure and their experimental manifestations	DUDEK	GOZDZ	22/22	A.GOZDZ K.MAZUREK A.PEDRAK	21	19/22	J.DUDEK H.MOLIQUE I.DEDES	21
05-115	Paris (LPNHE) Varsovie (INS)	Effets électromagnétiques et mésiques dans les atomes hadroniques	KAPUSTA	WYCECH	10/10	S.WYCECH	10	0/10	JP.DEDONDER B.LOISEAU	10
05-116	Paris (LPNHE) Cracovie (IFUJ)	Développement de programmes Monte-Carlo pour utiliser les faisceaux du LHC comme des faisceaux de bosons électrofaibles	KRASNY	PLACZEK	20/35	W.PLACZEK S.JADACH	20	35/35	M.W.KRASNY	35
05-118	Orsay (CSNSM) Varsovie (SINS)	Simulation du comportement du combustible nucléaire usé à l'aide des techniques de faisceaux d'ions	GARRIDO	TUROS	14/14	L.NOWICKI	18	9/14	F.GARRIDO	14
05-119	Strasbourg (IPHC) Cracovie (IFJ PAN)	Statistical effects in nuclei and nuclear Jacobi shape transitions	DUDEK	MAJ	10/28	A.MAJ M.KMIECIK K.MAZUREK B.SZPAK	21	16/28	J.DUDEK I.DEDES H.MOLIQUE D.CURIEN	26
06-121 COPIGAL	GANIL Varsovie (HIL)	Studies of electromagnetic structure of exotic nuclei with GANIL facilities	CLEMENT	NAPIORKOWSKI	6/8	P.NAPIORKOWSKI M.KOMOROWSKA K.WRZOSEK-LIPSKA	21	8/10	E.CLEMENT	5
06-122 COPIGAL	GANIL Varsovie (HIL)	Spectroscopie gamma de noyaux N-Z	de France	PALACZ	4/8	M.PALACZ	10	0/10	G.DE France	8
06-126	Orsay (IPN) Cracovie (IFJ PAN)	Collective properties of exotic nuclei studied at ALTO with PARIS Demonstrator	AZAIK	KMIECIK	11/14	M.KMIECIK A.MAJ B.WASILEWSKA M.ZIEBLINSKI	16	8/14	F.AZAIK J.WILSON I.MATEA	21
08-127	Paris (LPNHE) Cracovie (IFJ PAN)	Violation de CP et interactions fortes dans les désintégrations hadroniques des mésons B et D	KAPUSTA	KAMINSKI	21/21	R.KAMINSKI L.LESNAK	12	35/35	JP.DEDONDER B.LOISEAU	12
08-128 COPIGAL	GANIL Cracovie (IFUJ)	New GANIL detection setup for SHE identification	STODEL	WIELOCH	10/10	A.WIELOCH Z.SOSIN J.KALLUNKATHARIYIL	12	0/10	C.STODEL Others	12
08-131	Strasbourg (IPHC) Lublin (UMCS)	Broken symmetries, nuclear structure and collective motion	BARTEL	POMORSKI	63/65	K.POMORSKI B.NERLO-POMORSKA K.MAZUREK A.BARAN A.DOBROWOLSKI	50	65/65	J.BARTEL C.SCHMITT P.QUENTIN L.BONNEAU	50

Collaboration		Theme	IN2P3 Spokesman	COPIN Spokesman	COPIN scientists in France			IN2P3 scientists in Poland		
					use/attr. 2014	NAME	Attribution (in days)	use/attr. 2014	NAME	Attribution (in days)
09-133	Orsay (CSNSM) Varsovie (ITME)	Transformations structurales induites par l'irradiation dans des oxides pour les applications nucléaires	THOME	JAGIELSKI	14/14	J.JAGIELSKI	15	0/14	L.THOME A.DEBELLE G.SATTONNAY	15
09-135	Paris (APC) Lodz (IFJ)	Monte-Carlo generators for p-A and A-A at energies above 1017eV, simulation of extensive air shower development for the highest energy cosmic rays	PARIZOT	SZABELSKI	21/21	Z.PLEBANIAK J.KAZMARCZYK J.SZABELSKII	25	32/40	JN.CAPDEVIELLE P.GORODETZKY P.PRAT G.PREVOT E.PARIZOT	42
09-136 COPIGAL	GANIL Cracovie (IFJ PAN)	Influence of the neutron excess on binary decays from compound nuclei	BONNET	MAZUREK	12/12	K.MAZUREK	10	0/20	E.BONNET others	10
10-137 COPIGAL	GANIL Cracovie (IFJ PAN)	Isospin symmetry breaking exceptional points and effective symmetries from a perspective of the shell model embedded in the continuum	PLOSZAJCZAK	OKOLOWICZ	21/21	J.OKOLOWICZ	26	13/21	M.PLOSZAJCZAK	28
10-138	Anncy (LAPP) Cracovie (IFJ PAN)	Phénoménologie des désintégrations des bons W et Z et de nouveaux états à haute masse au LHC et à l'ILC	DI CIACCIO HRYN' OVA	WAS	20/21	Z.WAS T.PREDZINSKI	21	6/15	E.SAUVAN M.DELMASTRO	14
10-140	Paris (LPNHE) Cracovie (IFJ PAN)	ATLAS-LPNHEIFJ-ELECINJET: Use of electrons in jets with first Atlas data	DERUE	KACZMARSKA	27/30	A.KACZMARSKA P.BRUCKMAN DE RENTSTROM M.WOLTER A.ZEMLA P.MALECKI	21	22/30	F.DERUE S.PIRES	28
11-142	Anncy (LAPP) Cracovie (IFUJ)	Precision measurements with W and Z events in the first phase of the LHC	DI CIACCIO	RICHTER-WAS	15/15	M.PALKA M.BALCERAK E.WAS	21	4/15	L.DI CIACCIO S.JEZEQUEL	14
12-145	GANIL Cracovie (IFJ PAN)	Advanced Monte-Carlo and GEANT4 simulations for optimizing future experiments dedicated to nuclear dynamics at GANIL, SPIRAL1 and SPIRAL2.	SCHMITT	MAJ	9/30	A.MAJ K.MAZUREK M.KMIECIK B.WASILEWSKA	15	27/30	C.SCHMITT M.CIEMALA O.STEZOWSKI O.DORVAUX I.COMPANIS	21
12-146	Caen (LPC) avec LPSC et CSNSM Cracovie (IFUJ)	n_EDM - Magnetic field calculations and monitoring - Detection and data acquisition	QUEMENER	ZEJMA	16/16	K.BODEK J.ZEJMA M.RAWLIK	15	9/16	T.LEFORT G.QUEMENER S.ROCCIA D.DEBREYEND	16
12-147	Orsay (IPN and LAL) Varsovie (NCNR)	KT factorisation and quarkonium production in the LHC era	LANSBERG	SZYMANOWSKI	30/30	L.SZYMANOWSKI J.WAGNER D.KIKOLA D.BLASCHKE	30	39/40	JP.LANSBERG C.HADJIDAKIS L.MASSACRIER	30
14-148	GANIL Varsovie (IFJ-PAN)	Radioactive Nuclei for medical applications	DE France	JASTRZEBSKI CHOINSKI	14/14	J.CHOINSKI J.JAKUBOWSKI J.JASTRZEBSKI B.RADOMYSKI A.STOLARZ	12	12/14	G.DE France H.FRANBERG M.FADIL X.LEDOUX J.GRINYER C.STODEL	12
15-149 new	Orsay (CSNSM) Lublin (UMCS)	Study of isomeric states in nuclei	PETRACHE	SREBRNY		J.SREBRNY A.TUCHOLSKI A.ZDEB	10		A.ASTIER C.PETRACHE	14
RESERVE					2/20		10	0/28		30
							460			504

4. AOB

In general, the new online application system was a good idea, as it is better to have one common report & demand per collaboration each year to avoid discrepancies. The deadline for submitting the reports will be maintained on **October 31st**.

The next Joint Committee meeting will take place in Krakow on **Monday, November 30th 2015**.