AGATA AMB Phone conference 27th January 2026

Sujet : AGATA AMB Jan 2026 –

Apologies:

LNL Status (A. Goasduff)
Beam time schedule released. https://www.lnl.infn.it/wp-content/uploads/TAP_Calendario.pdf
21 detectors collecting data. 15 new servers for DAQ delivered and 5 installed in the IT room. Upgrade to DEBIAN 13 (Kernel 6) on-going. GGP servers compiled on kernel6. DAEMULE lecture in LNL. Test on-going for the nearline and offline processing.
https://indico.in2p3.fr/event/35264/contributions/160510/

On site V2 test : ADF format validated and IDLE date frames checked. Small firmware modification for data are requested to optimize the chain.
GTS test on-going. Highest priority for Alain and Andres.

Adaptive MDR board for CAEN digitizers prototype delivered. A full chain including VX2740 + xdaq + TkT running.

First batch of trigger board for GGP at LNL.

ASC Report / ASC Matters (M. Gorska)
No specific updates. Most of the partners did not sign yet the amendment. To be risen at the next ASC and ARRB. These meetings will also validate the change of regulations for the core authors list.

ACC Report / ACC Matters (J.J. Valiente Dobon)
•AGATA web page: we had a first meeting with the company that will take care of the new web page. The company showed a possible layout. 28/1/2026 I will have a meeting to see the progress of the web page. Later meeting with everyone

•O.S. prepared a document with questions pre-data policy final document. Questions in a google form format will be sent to the ACC members most probably next week.

•Prizes mail I sent: I would like to draw your attention to the approaching 31 January deadline for the submission of nominations for the European Physical Society (EPS) awards that are administered at the central level. A full overview of these distinctions is available at: https://eps.org/what-we-do/distinctions/ Among the various awards, I would like to highlight in particular the EPS Early Career Prize (for researchers within six years of their PhD award) and the EPS Fellowship, which recognises sustained and outstanding contributions over a longer period. Identifying

GSI Status (K. Wimmer)
Regular meeting now with the S-FRS simulation team for the LEB cave.
The next BmBf grant is under discussion. A proposition is to reduce the proposal to 3 ATC + OC and add the D-AGATA as 4th ATC contribution to fullfill the Phase2 agreement.

GANIL Status (E. Clement / C. Ciampi)
Caterina Ciampi is now joining the AMB for the GANIL campaign preparation.
A review of the mechanical integration was done in January gathering GRIT and GANIL designers with Richard, Bénédicte and Roberto. Main discussion on the cable management and cryo plant. Agreed for a visit later in 2026 to review the LNL cable management choice. DAQ container at GANIL under study. The previous room (BAE019) could be re-used after an upgrade of the power to dissipate. CEPH is 5 kW and the mini daq box at Orsay will be used in March to estimate a realistic power consumption assuming V2 architecture.

Bénédicte reminded that we must update the HostLab requirement document.

On the GRIT side, missing infos for the host agreement. Question was raised on the simulation package(s) for the campaign between the AGATA one and the NPTool V4 package. To be discussed within the simulation teams.

REPORTS FROM THE WORKING GROUPS

Detector Module (H. Hess)

Since the last meeting before Christmas, there has not been much new to report. Nevertheless, the work is progressing well:

- Three new detectors have been delivered to the AGATA community:
  A026 and C025 (22 December 2025)
  B024 (14 January 2026)
- Three additional detectors at Legnaro are awaiting shipment to Mirion for annealing.
- The three DAGATA detectors (A0040, TUD B, and TUD C) will be transported by myself tomorrow (28 January) to Mirion for repair.
- At the same time, I will transport a test cryostat to IPHC Strasbourg for scanning.

In Cologne, we currently have three ATCs in the pipeline—ATC24 (GSI), ATC25 (IPHC), and the DEGAS TC—which are almost ready for shipment. CTT is debugging oscillation issues on ATC25, and the detector group will cool down the DEGAS TC for testing prior to shipment to Legnaro. This triple cryostat was last tested in 23/24 and will be tested again to ensure safe operation.

The MIRION – AGATA meeting took place on the 22nd of January and prices agreed between partner. General increase of cost is +2.5%. The discount algorithm was clarified for annealing and repairs services. The unit cost for a new capsules in 2026 is 194 719€. MIRION warned us that the Ge material suffers from huge inflation.

CTT and MIRION agreed on the transfer of technology. This is a very good news for the visibility of cryostat procurement for the long term. Cryostat will be identical to the CTT design. Cost not communicated.

The question has been raised of whether the cost of an ATC will be re-evaluated in the coming years, given the increases in HPGe and cryostat costs.

→ACTION on BM and EC.

Infrastructure (B. Million)

Autofill meeting on the 7th of January. Agreed on a significant upgrade for the GANIL2 phase. Patch box batch on-going. Padova is about to buy the alloy for the next flanges production.

Front End Electronics (A. Gadea)

Coordination: last Electronics W.G. VC was on January 7th, 2026,
next Electronics W.G. VC meeting on Wednesday, February 11th, 2026, 10:00 AM 9:00 U.K.

DIGIOPT12 (A.Pullia):
By January 7th, 206 cards were updated, to add the chip to enable/disable fast reset from slow control. Work is continuing. Valencia shipping problems reported last time have been resolved. Andres reported that only 9 more cards need to be sent for update (these are in test systems and will be swapped soon)
All 261 DISGIOPT12 segment boards (all but the 9 in test setups) are expected to be in Valencia before February 15th.

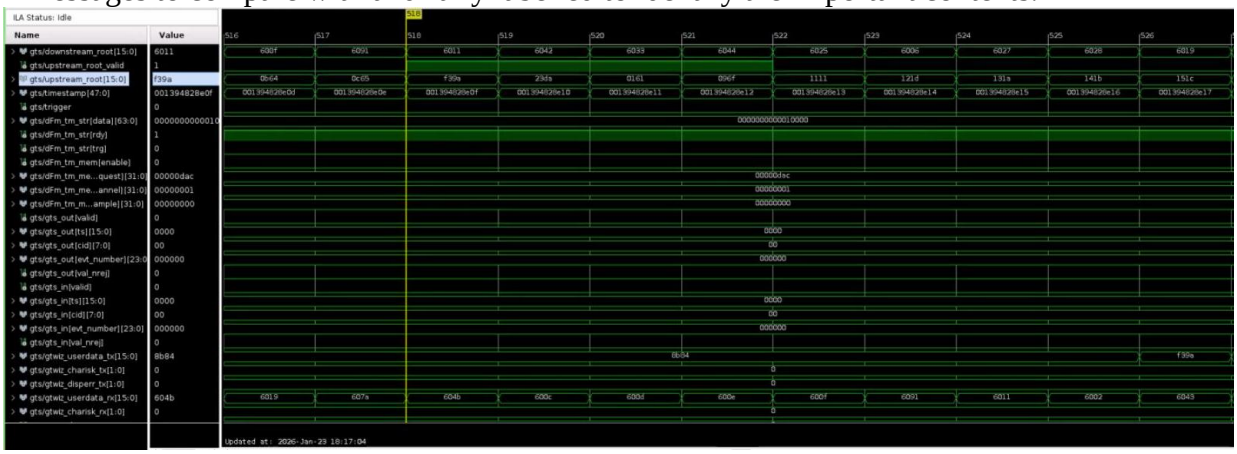
PACE Status (J.Collado, reported by A.Gadea and V.Gonzalez)

PACE Production-
From the full production we have 10 in Valencia and LNL, some of them with issues with de SD reader or the GTS SFP controller.

Teydisa having issues with the work load. Factory test performed on 31 PACE boards more, 24 functional and 7 with different issues, but mostly related to missing 1V and 3.3V voltages. With the delivery 25 of TE0808 from INFN to IFIC, we sent 12 of them to Teydisa and with them they could completed the tests and delivery.

PACE Firmware Status –
Data Format ok, but change required in the format of the samples.
Still debugging the GTS alignment procedure. Now simulating alignment with a fake phase signal, but alignment needs measurement of buffered and unbuffered signals. GTS directly connected was connected to an incorrect pin, not the transceiver. This took a long time to find but is now solved.
Meanwhile testing messages and the coarse delay FIFO still not ok.
Two systems at LNL to check the data taking and the GTS alignment. The one to test de GTS alignment has also an AGAVA in the tree and a signal generator to be able to get Trigger request to AGAVA and PACE. A.Goasduff connected as well the old

trigger processor to the GTS test tree al LNL and discovered that Trigger req/validate/reject messages are received but not understood by GTS- still under investigation.
Presently the work in the firmware is mainly on the coarse delay FIFO and in the messages. The GTS parts associated with the messages seems to be wrong in several aspects. Abderrahman Boujrad and Matthieu Bezard helped with providing correct messages to compare with and fully labelled to identify the important contents.

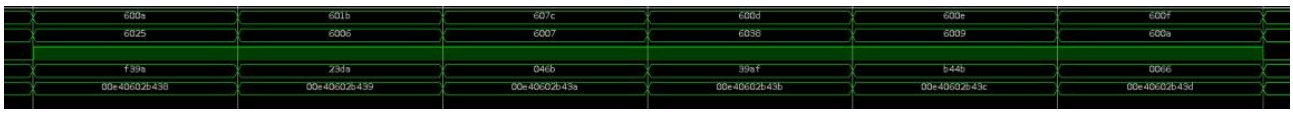


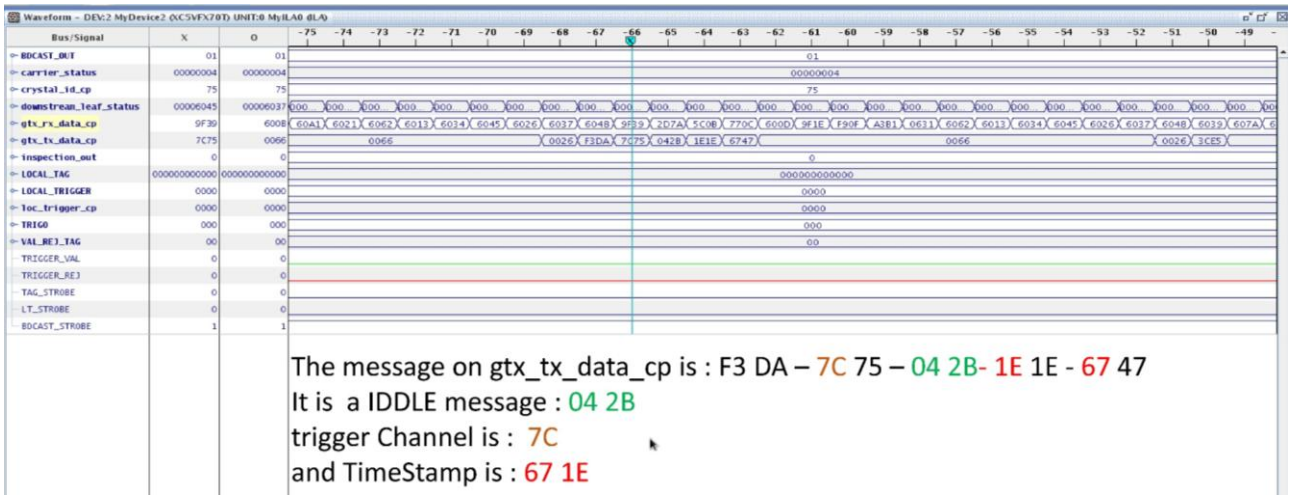
Zeptonova contract tasks ended and deliverables uploaded in the AGATA git.
Extension agreed for the following tasks:

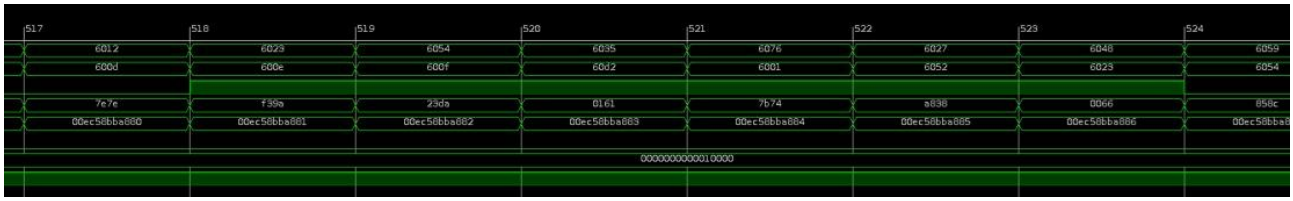
- Maintenance of AGATA Ph2 PACE GTS to Trigger processor communication for Ph2 Firmware.
- Maintenance and verification of the GTS fine delay measurement.
- Maintenance and verification of the External Trigger signal for PACE Board and global time synchronization.

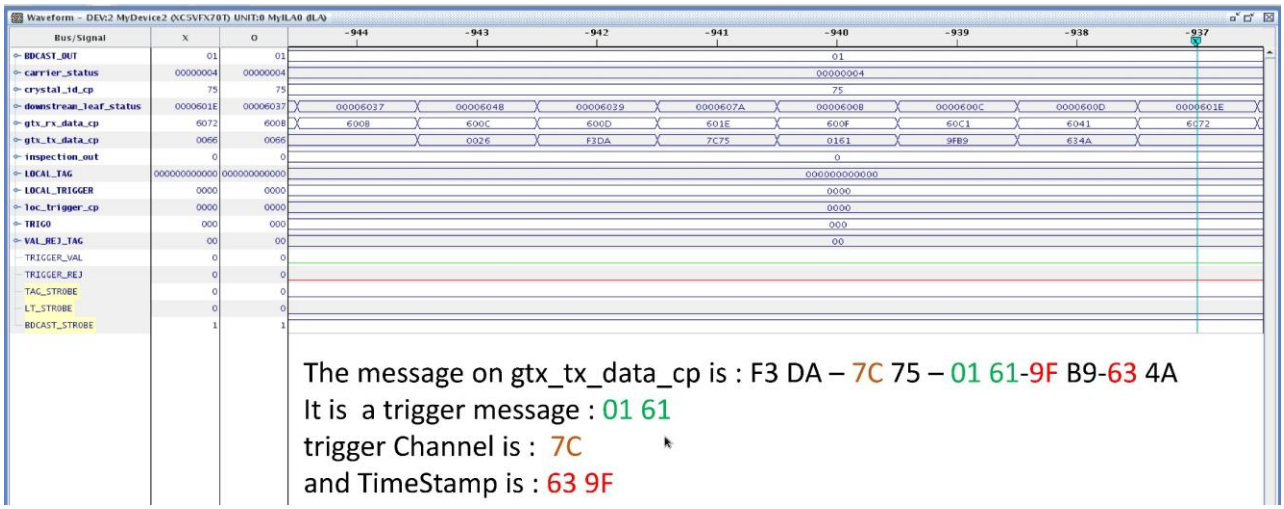
A.Gadea will be at LNL with A.Goasduff to continue the test with a GTS tree in the coming days.

Last news from Alain testing today:









PSU and Mechanics: (V.Gonzalez)
Missing PSU components received just before Christmas so proceeding now to assembly.
Lost connection after 2 days test which was reported last time was investigated and shown to be just a network issue.
IP is set up and proceeding to assembling the system to check if there is still a noise problem.
Mechanics production- need to select company and place order now that the design has been verified.

Checking the possibility to exchange the HDMI cables for more stable ones.

STARE production and Firmware Status (N. Karkour, X. Lafay)
Production
25 SOMs have been delivered (INFN order) in December.
New delivery of 39 TE0841-03-41I31-A (GANIL order) happened mid January
New SOM batches will be tested with the firmware to ensure that there have been no further small changes to the SOMs.

Still waiting for inter-building software data transfer test.

Local data transfer tests with old DAQ workstation is working well.

Firmware
nothing to report on firmware.
100G Ethernet test between 2 buildings- some tests performed by X. Lafay, but not yet results (Topology not yet full configured for high rate test)

A.Goasduff requested to upgrade to latest version of firmware with counters (still using May version). This will help with the performance evaluation.

SMART (E.Clement, A.Boujrad)
Firmware part is OK, working on software with the 9 card tree during December.

Slow Control and Software (Ch. Bonnin, N. Dosme)
Christian has updated slow control to the latest PACE and STARE register definition.
Integration is under way now for slow control with topology manager etc.
Also new GTS register definitions needed.
Discussed system integration: IN2P3 has a complete chain with Guillaume being the responsible person and NK is working with him on the Orsay part.
AGATA needs a plan for integration of the whole system including non-IN2P3 part.

Summary of Procurement and Delivery Schedule

DIGIOPT12 v3.6, v3.7 and v3.7.1: delivered 90 core boards and 270 segment board, update of the fast-reset logical component almost completed for all segment board. They are expected to be all ready by mid February 2026.

STARE hardware: 64 production boards + 10 pre-production boards are ready and 13 SoMs already available for completing up to 87 STARES.
Ordered 64 STARE SoMs TE0841-03-41I31-A, 25 by INFN expected to be sent to Orsay first week of December and 39 by GANIL expected to be delivered on 2nd week of January 2026.
Expected to have >=87 STARES by the end of the year.

STARE Firmware: existing for all versions of TE0841 SoMs. The existing firmware is based in UDP data transfer and UDP does not handle packet loss without implementing a retry mechanisms

PACE hardware: first 90 boards, including 33 repaired exchanging the wrong voltage regulator, are ready now. Test system operational at the company since June and supporting all TE0808 SoM versions.
Only 31 PACE boards tested, 24 ok 7 with issues already discussed.

The 25 TE0808-05-BBE81-E ordered by INFN were delivered on 3rd December 2025 and 12 are sent to Teydisa already.
GANIL purchased 50 TE0808-05-BBE81-E expected to be delivered on November but now retimed to mid February 2026

Order for the 50 remaining PACE boards will be placed by INFN using 2025 funds.

PSU and backplanes: 50 PSUv2.5existing since end of June, minor modification to gain stability ongoing.
PSUv2.5 supports already all DIGIOPT12 boards v3.6, v3.7 and v3.7.1. Changed design to PSUv2.6 (t13_rev1) due to component obsolescence. The PSUv2.6 board available since October. Purchasing order for 30 units to be placed by INFN on 2025 funds and 30 more already ordered on O.C. existing at GANIL. A total of 110 PSU will be existing early 2026.
Power backplane: 77 units existing and Signal backplane: 85 units existing.
Ongoing order by GANIL of 70 power backplane and 60 Signal backplanes, on core and O.C. by GANIL, to complete the production including spare

PACE firmware: Mostly completed. Data format is now working and monitoring as well. Started GTS integration and we expect to have this part completed before the end of 2025. Necessary to explore how the MWD algorithms implemented work at high rates.

Mechanics:
- Boxes: 90 units
- Crates: 90 units
- Cooling plates + heat exchangers:
  - 28 PACE cooling blocks (+8 to be update to new design)
  - 78 STARE cooling blocks
  - 240 Digitopt12 cooling blocks
  - 59 Heat exchangers, Alodine treated
- Frontal and rear panel, only prototypes existing.

We will outsource the production of the PACE cooling blocks and possibly the Heat exchangers.

Data Processing (O. Stézowski)

Coordination:

Last regular meeting Decembre 1th, next January 30th

NEWS:

- Preparation of a vote to be submitted to the ACC to define our future DMP
  - Visio me and Javier last Friday
  - Summary documentation here

Meta data related

Q: The proposal of the experiment should be part of the metadata ? if yes, What is to be attached and how ?

Online Data related

Q: For how long should we preserve the data for each Processing Stage ?

Q: What should be the retention periods for the experimental collaboration, the AGATA collaboration, the world and what should be fully open ?

Offline Data related

Q: One may consider all this produced data should come back to the AGATA collaboration ?

Q: What procedure should we set to ensure it ?

Q: What policy is to be applied on this data set ?

  - Google spreadsheet under preparation … sent to ACC members in the coming week

- Material for phase 2 processing
  - 15 nodes racked @ LNL
    → 30 STARE channels
  - Network connection soon

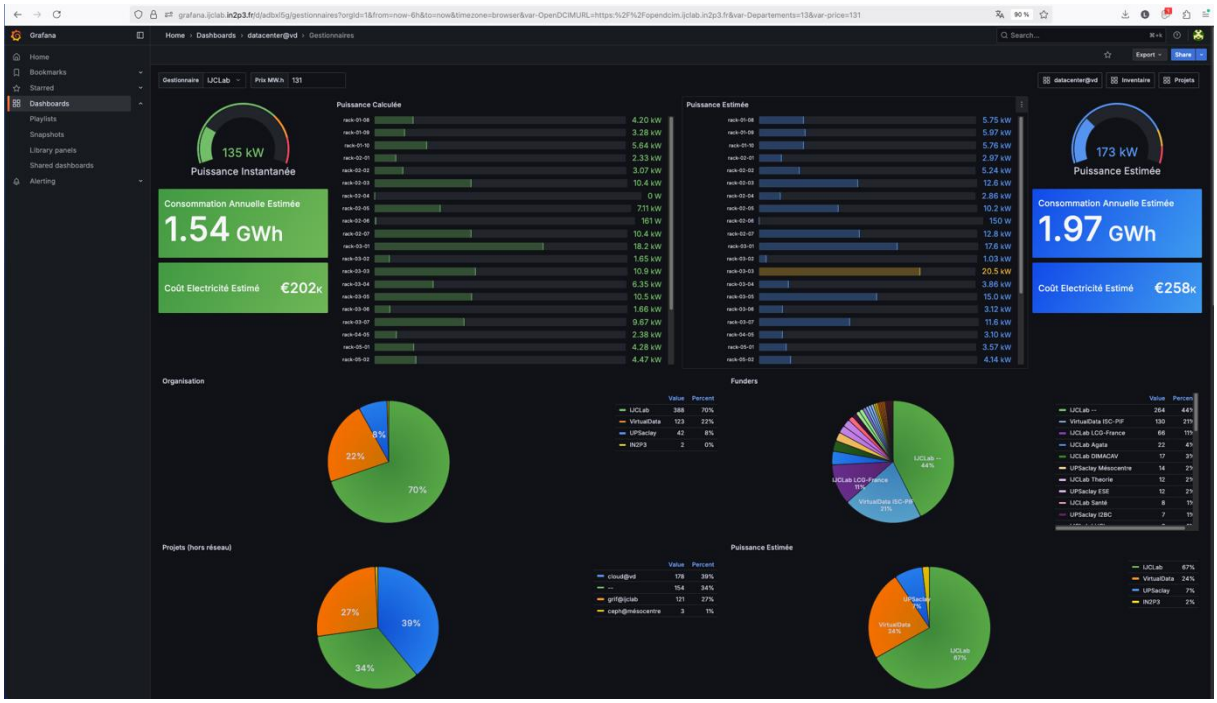
- Test Elec. V2 @ Orsay [100Gb/s connexion between STARE and computing centre]
  - Network configured
  - Software configuration being
    - Cards ←→ Topology Manager
  - Next step is running DAQ up to PSA

- Test Elec. V2 @ LNL
  - Checking of the data produced by the local team
  - In parallel development of a new 'ADF Frame Inspector' to check data quality
    - It is a filter in NARVAL world

- Training on the new analyse cluster (DAEmul)
  - Zoom demo yesterday with local LNL analysis team !

- Action to modernize / streamline histogram management in AGAPRO
  - Mail sent to some expert to determine which spectra are used, important, required, to be kept?
  - For the phase 2, already 4 To of spectra produced online ….
  - NO REPLY so far

Some dashboard from the Virtual Data @ Orsay … from on grid machines CPU based. Regarding rack consumption at Virtualdata, Guillaume Philippon recently created some useful dashboards by retrieving data from the Opendcim database, including consumption per rack. The one that stands out in the screenshot is a grid computing rack with slightly older machines, which is at the very high end of the scale.



PSA and Tracking R&D (A. Boston)

AI/ML OASIS workshop announced. Will be only online. The upgraded test cryostat was delivered to IPHC. More detailed PSA report from Fraser to be delivered. Migration into the general AGAPRO branch of Fraser integration on-going. Discussion between Fraser and Jérémie. Missing report on the B-type scan at IPHC. Nor Tracking activity.

Performance and Simulation (M. Labiche)

- No specific report

Financial Reports (B. Million)

Need to find 25k€ for the Autofill upgrade. Part can be found at France/IN2P3 after the capsule discount. What about the CORE DAQ money at Orsay saved since 2 years.

For 2026 :

- Italy as expected
- France : CNRS aspected, GANIL as expected, CEA OC ok, waiting for CORE
- UK, Sweden, Germany have to make the request
- Hungary, Sweden OC as expected

Dissemination (I. Kuti)

No report

AOB

Next AGATA week : https://indico.in2p3.fr/event/37746/overview

Next AMB with team leader : Sujet: AMB February
Heure: 18 févr. 2026 02:00 PM Paris
Participer à la réunion Zoom
https://cnrs.zoom.us/j/99285257797?pwd=5kjkdZkaWjI7D1YnpVqpaIjPtFgpOk.1

March AMB in presence in CNRS headquarter, Paris 30th – 31st March; noon-to-noon, 3 Rue Michel Ange, 75016 Paris