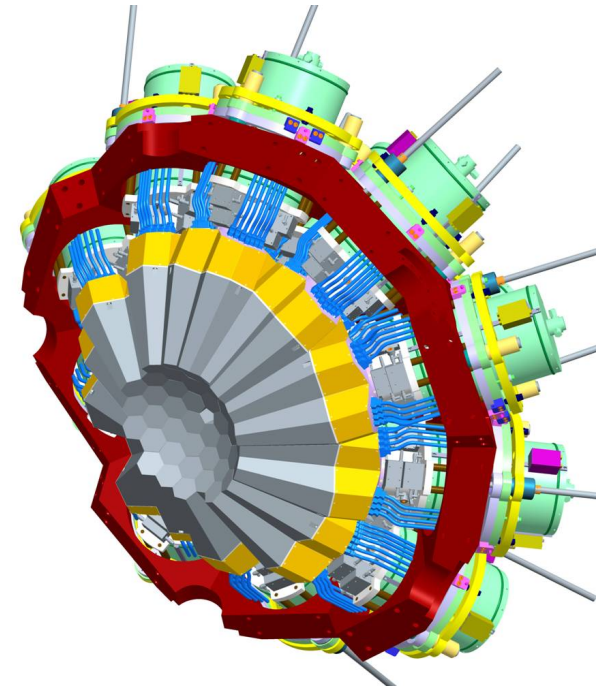


Status of the AGATA Project

Andres Gadea (IFIC-CSIC, Spain)
on behalf the AMB

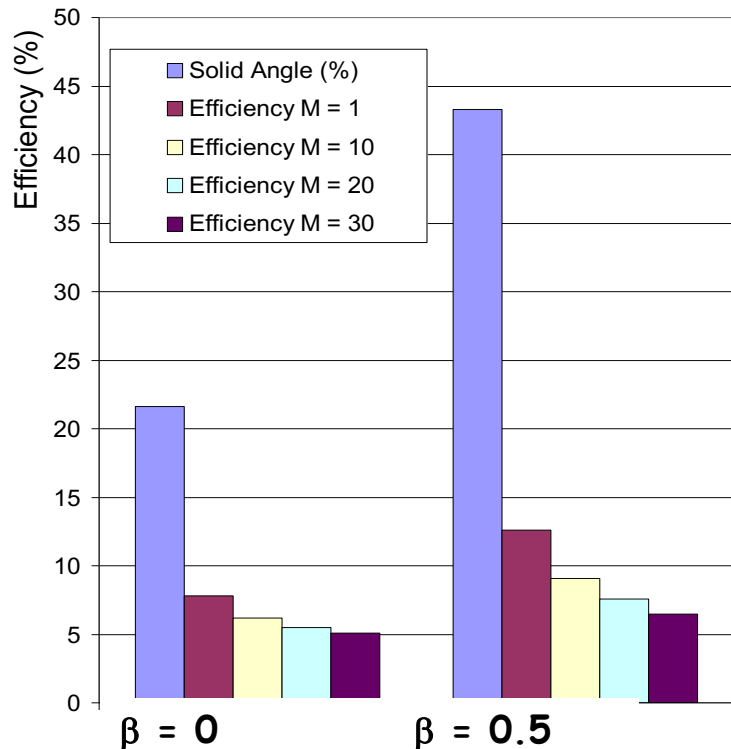
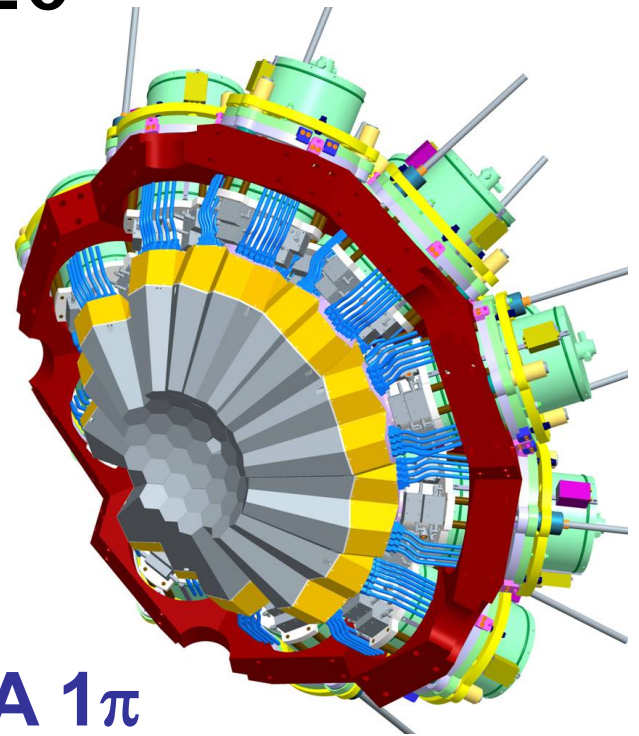


AGATA Week, University of Milan 13th-15th September 2017

The AGATA Phase 1

2009-(2015) 2020

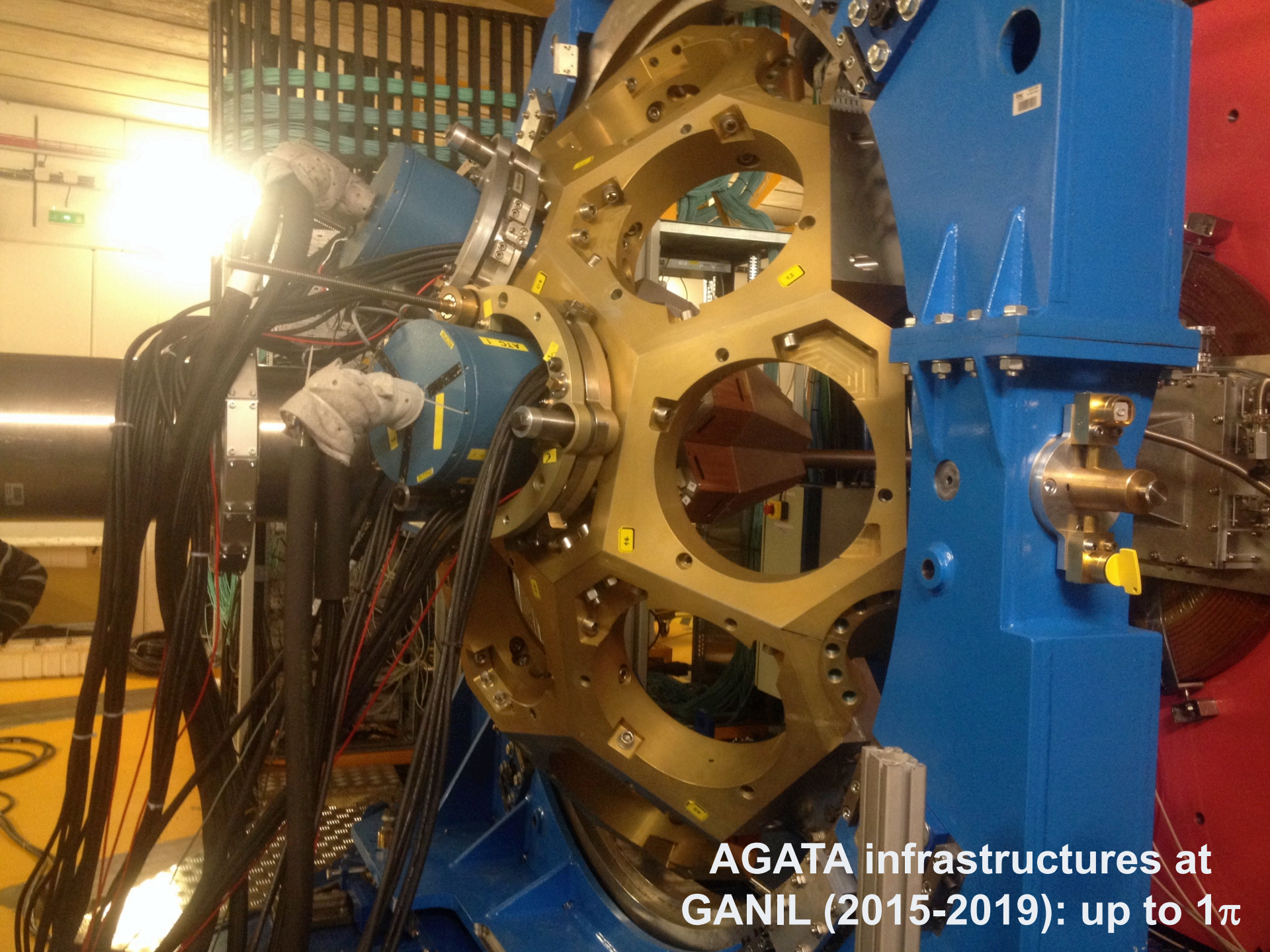
- Phase 1 of AGATA ($>1\pi$) \rightarrow 60 crystals
- **MoU ongoing, ~85 % achieved, Extended until 2020**
- Triple and Double clusters
- The first “real” tracking array



AGATA 1π

To be used at RIB and High Intensity Stable beam facilities
(FAIR-HISPEC, SPIRAL2, SPES, GSI, LNL, GANIL, ...)

Coupled to spectrometers, trackers neutron and LCP arrays...



**AGATA infrastructures at
GANIL (2015-2019): up to 1π**



AGATA MANAGEMENT BOARD AND TEAMS

A. Gadea (Project Manager)
A. Boston, B. Million, A. Korichi, F. Recchia, G. Duchêne, (ASC) and J. Nyberg (ACC).
J. Gerl (LCM-GSI), E. Clement (LCM-GANIL)

AGATA Working Groups

AGATA Teams

	Detector Module P. Reiter	Detector & Cryostat H.Hess	Detector Characterisation H.Hess	Detector CAT & Testing H. Boston	R & D on gamma Detectors & Applications
AMB Chairman Project Manager A.Gadea	Front-end Electronics A. Gadea	Pre-Amplifier Digitizer A. Pullia	Global Trigger & Synchronization M. Bellato	Pre-processing I. Lazarus	
	Data Flow A.Korichi	Hard/Software DAQ Support G. Lalaire	Slow Control & FEE Monitoring E. Legay		
	Data Analysis A.Boston	Data Analysis & TRACKING O. Stezowski A. Lopez-Martens	PSA Algorithm Development L. J. Harkness	GRID Data managing and Analysis	
Resource Manager	Infrastructure. Comp. Det. B.Million	Detector array Infrastructure R.Menegazzo	Complementary Detectors J.J. Valiente	Mechanical Infrastructure A.Grant	
	Performance and Simulation F.Recchia	AGATA Performance C.Michelagnoli J.Ljungvall	AGATA Commissioning P.R.John	AGATA Physics & exp. Simulation M. Labiche	
	Technical Coordinator Engineering Advi.	Compatibility EMC, Interfacing	Specification control	Quality Control	Documentation

Local Campaign Managers (LCM)

INFN-LNL
Legnaro

GSI
Darmstadt
J.Gerl

GANIL-SPIRAL2
Caen
E.Clement

AGATA Capsules Summary

September 2017



43 detectors delivered:

A001, A002, A003, A004, A005, A006, A007, A008, A009, A010, A011, A012, A015
 B001, B002, B003, B004, B005, B006, B007, B008, B009, B010, B011, B012, B013, B014, B016
 C001, C002, C003, C004, C005, C006, C007, C008, C009, C010, C011, C012, C013, C014, C016

A013, A014, B015, C015 ordered 1 France (late 2017) + 3 Germany (due).

Five detectors with failures C001 C003, C013, B009, B010 and S003

Mostly leakage current. Three failures during last 6 capsules annealing

New Detectors being financed by Hungary (3) and by Finland (1)

Colorcode:
 Working
 broken
 CAT pending

Usage of the available detectors:

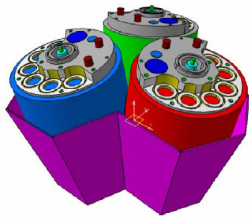
A012	A003	A002	A007	A005	A001	A006	A009	A004	A010	A011	A015	
B001	B003	B010	B007	B002	B004	B013	B005	B008	B012	B006	B016	B011
C004	C005	C001	C007	C009	C010	C006	C008	C002	C014	C012	C016	C011
ATC1	ATC2	ATC3	ATC4	ATC5	ATC6	ATC7	ATC8	ATC9	ATC10	ATC11	ATC12	ADC3

38 Capsules available, 32 in the set-up in GANIL. ATC12 delivered March 2017, next to be mounted ATC13.

ATC1 & ATC3 major maintenance (neutron damaged) and ATC9 repaired on-site of a severe HV failure by IKP-Cologne, IRFU-Saclay and GANIL teams.

CAT done at IKP-Cologne, CEA-IRFU Saclay, now also at IPHC-Strasbourg
 Excellent working together H.Hess, IKP, IRFU and GANIL teams: efficient maintenance work.

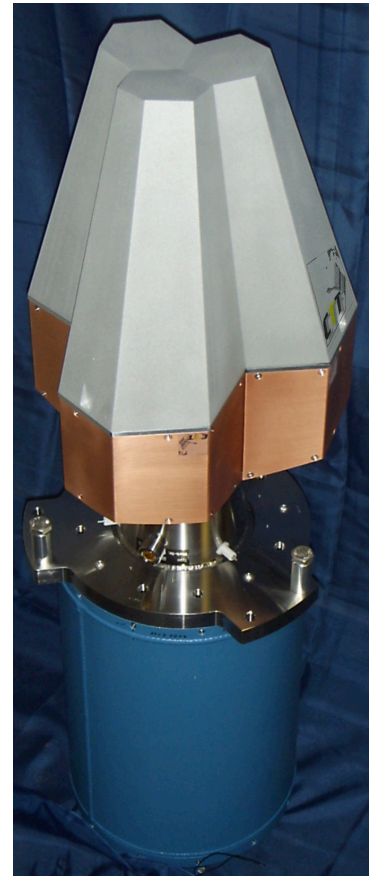
IKP-Köln, Uni. Liverpool, CEA IRFU-Saclay, GANIL, IPHC-Strasbourg



AGATA Cryostats



- 11 Triple + 3 Double Cluster Cryostats “Comissioned by CTT
- 2 Triples ACT11, ATC12 delivered in 2016 and early 2017
- ATC11 is ADC2
- Mechanical/vacuum problems with ATC3 and ATC4 maintenance started.
- 1 ATC cryostats ordered by Germany ready for mounting
- 2 ATC cryostat to be order by France (2017) and Italy (2018)
- Expected in 2018-2019: 15 ATC + 2 ADC
- Only 15 in total ATCs + ADCs could be installed at GANIL
- Symmetric Triple Cluster not completed: S003 CAT failure



Detector Characterization

- Restarted the Scanning activity. Scanning sites: University of Liverpool, CSNSM Orsay, GSI, Uni. Salamanca (commissioning)
- The IPHC Strasbourg Scanning table based on the Pulse-Shape Comparison Scanning fully operational. First experimental pulse databases.
- Necessity of new collimated scanning data to provide integrated data sets for two interactions per segment.

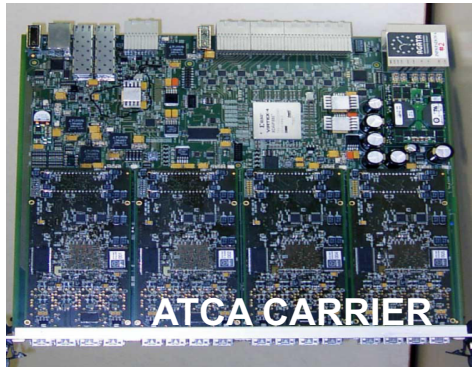
- The University of Salamanca scanning table commissioned with B014 (follows the GSI design with PSCS + ^{22}Na source).
- Characterization measurements are ongoing with the aim to get as much position values as possible. Taking into account that the Salamanca scanning table does not measure just in a 1mm resolution grid but will try a sub-mm resolution.



AGATA Electronics Phase 0/ Early 1

DIGITIZERS:

Available 26 GANIL + 1 CSMSN. Repairs performed at STFC. Stocks of spares are running out since design is over 10 years old.



ATCA CARRIER:

24 pairs at GANIL. Stable since upgraded by CSNSM. 1 set of cards to be repaired at CSNSM/IPNO. Maintenance Center at CSNSM V4 and IPNO V3. Test system now under maintenance. Severe issues for the personnel reduction at CSNSM.

SEGMENT & CORE MEZZANINES:

181 (seg) functional. 25 Core Mezzanines on stand-by



TCLK CARDS: 25 available

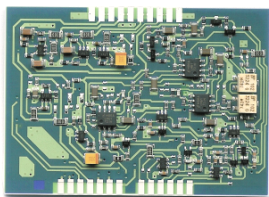
GTS MEZZANINES: 37 available

LINCO2 CARDS: 27 available.

Repairing of 2 ongoing

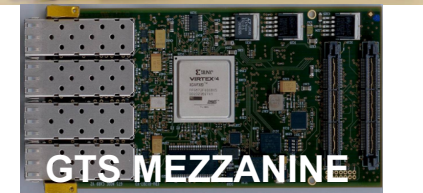
GTS VME CARRIERS: 20 available

AGAVA VME Interface: 8 available



PRE-AMPLIFIERS

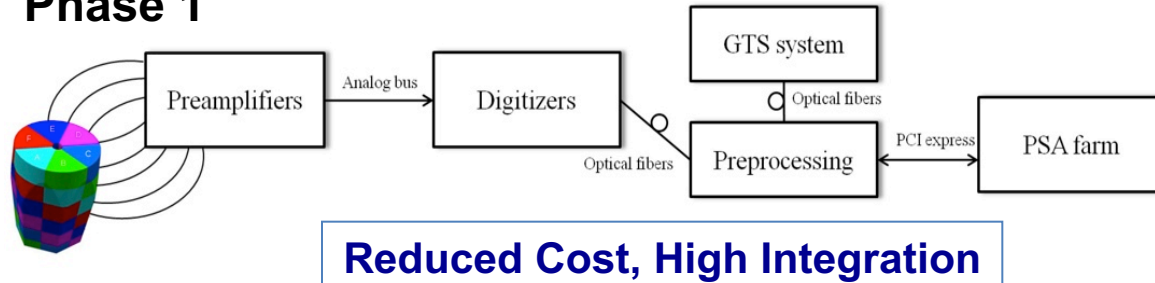
GANIL, IKP-Köln, INFN-Milano



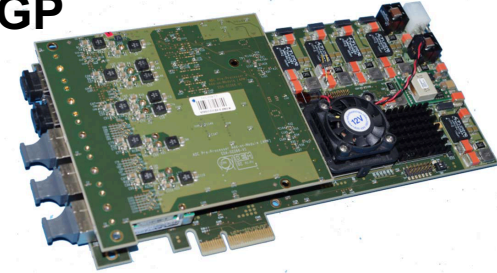
CSNSM Orsay, INFN Padova, STFC Daresbury/RAL, IPN Orsay, IFJ-PAN Cracow

Advanced Phase 1 Electronics

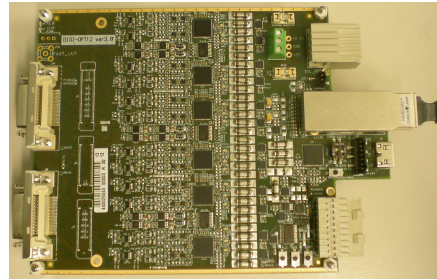
Phase 1



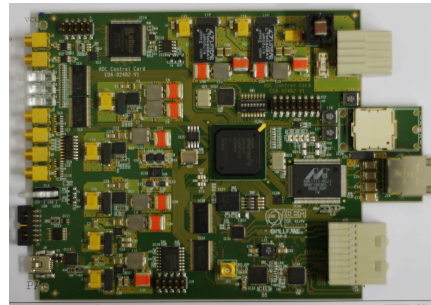
PCI Pre-Processing Card GGP



ADC Card



Control Card



- Electronics shared with GALILEO.
- GTS first Integration of 23 ATCA channels + 7 GGPs completed on 4th March 2016.
- Presently 12 Digitizers + 12 GGP at GANIL (few borrowed from GALILEO). In total 13 channels produced.
- The 13th DIGITIZER being repaired.
- 3 GGP to be repaired → FPGA exchange.
- Observed Validation loses issue at high counting rate and readout issues.
- Firmware Improvements in the synchronization procedure and in the Validation timeout installed by INFN-Padova on March 2017.

D. Barrientos, et al., IEEE TRANS. NS

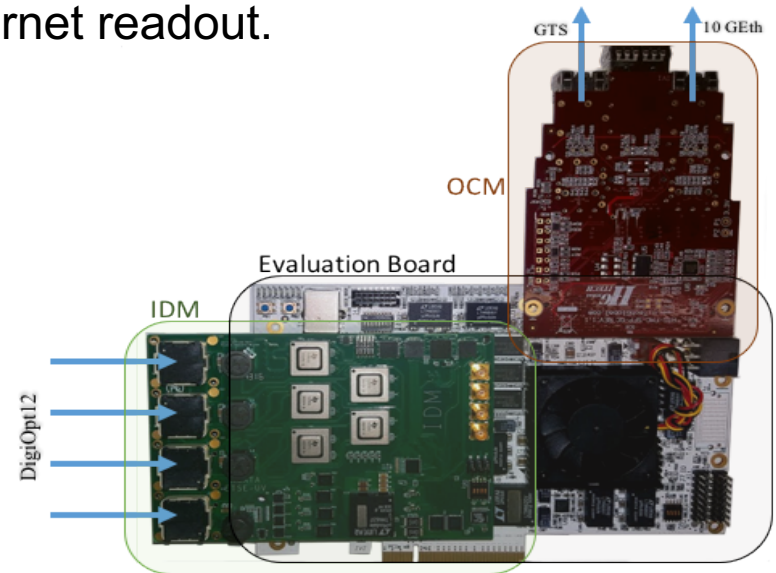
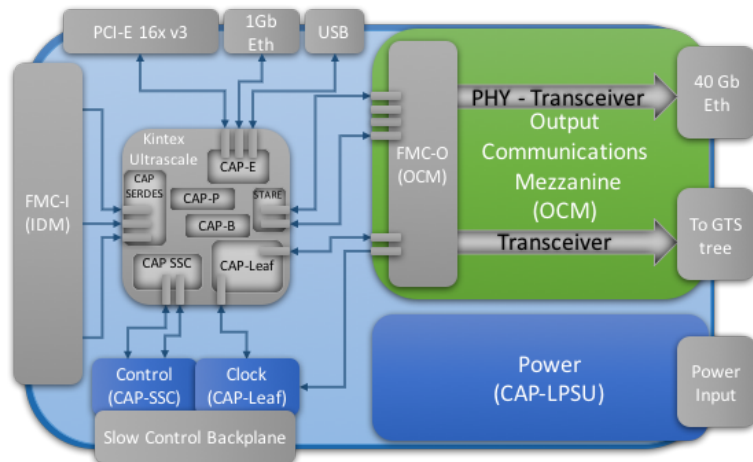
INFN-Padova INFN-Milano INFN-LNL
IFIC-Valencia ETSE-Uni.Valencia

Electronics production and R&D

- The upgrade to 45 channels for the GANIL campaign, required a production of the GGP / DIGI-OPT12 Electronics. Proposed to produce 10 channels + spares.

Production on-going or completed for several items , Initial target schedule for production: end 2017 (more realistic nowadays mid 2018)

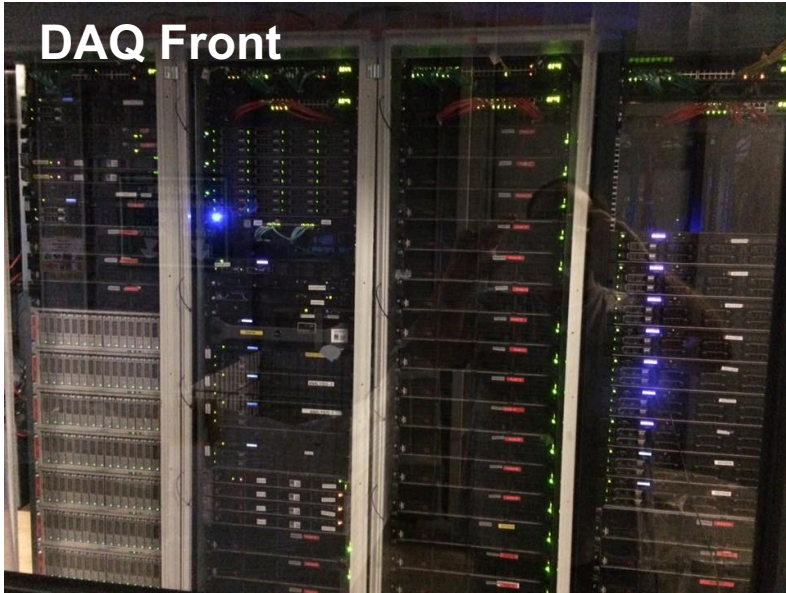
- The AMB encouraged the R&D of a medium term Electronics (~2020) proposed by CSNSM-Orsay, ETSE-Valencia and INFN-Milano. Goal: low costs, higher processing capability and with Ethernet readout.



-AGATA GTS Trigger Processor limited to 40 TR. Severe problem for 2018 AGATA + NEDA +DIAMANT campaigning. The EXOGAM2 GTS Trigger Processor, 2018, under test.

Phase 1 AGATA Data Flow NARVAL at GANIL

DAQ Front



DAQ Back



Hardware:

- New Hardware available, 10 servers devoted to GGP electronics.
Control servers and switches also renewed.
- CEPH Cluster 122 TB & bandwidth x 6. To be upgraded within 2017.
- Backup for disk server. Low cost Spare disk storage system purchased. Compatible with the existing CEPH
- About 10 new servers required within 2018 to increase the number of channels to 45
- LINCO driver in the last version of the Debian Operating System. Almost all ANODEs are upgraded using the latest OS and made them all identical for an easier management.

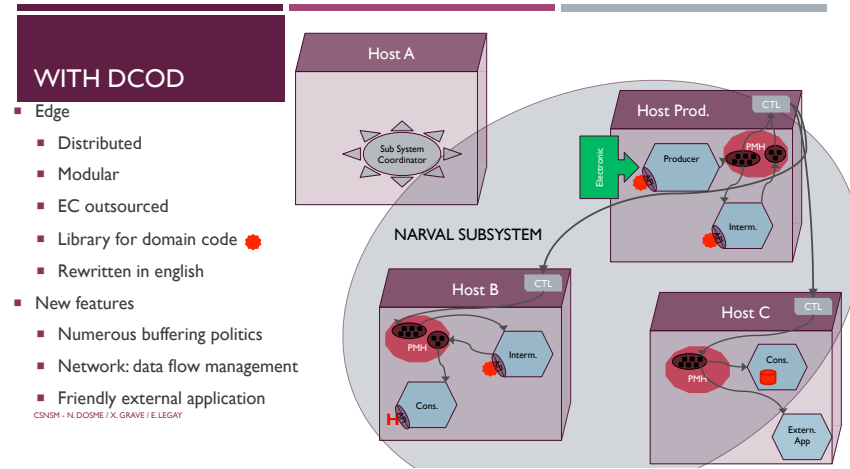
Phase 1 AGATA Data Flow NARVAL at GANIL

DAQ Software:

- Upgrade of the system to DCOD ongoing.
- Now PSA data bases uploaded very fast as a feature of DCOD.
- Data Integrity checked with source runs.
- Completion of the installation of DCOD at GANIL postponed due to the starting of the 2017 campaign.

GEC, RCC and Topology Manager:

- Global Electronic Control and Topology Manager are being upgraded removing the use of scripts (user friendly).
- General AGATA display and control produced. Electronics status included: GTS interface, Anode interface (Add launch /kill/restart DCOD, reboot, show status etc...), Reload topology ATCA Carrier interface, GGP interface. Commissioning to continue late 2017 and early 2018
- Ongoing the modification of the RCC and TM in order to control DCOD with the RCC.



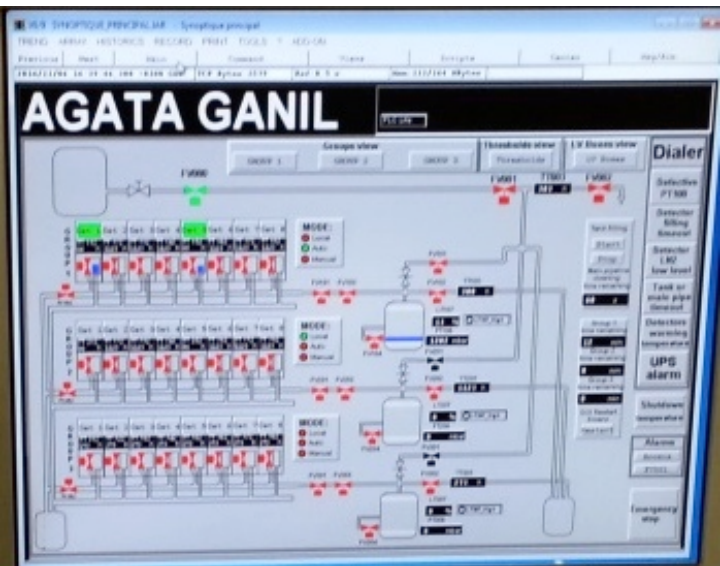
The screenshot shows the 'Display And Control Web Page' for the 'Topology Manager / SC Digitizer'. It includes a table of device status and a log of messages.

Cluster	Crystal	Color	Digitizer	Master	Anode	GGP	GTS
stc03 (9)	st011	C	stc03001	stc03001	stc03001	ggp015	???
stc03 (9)	st012	B	stc03002	stc03002	stc03002	ggp015	???
stc03 (9)	st013	C	stc03003	stc03003	stc03003	ggp015	???
stc03 (9)	st014	A	stc03004	stc03004	stc03004	ggp015	???
stc03 (9)	st015	B	stc03005	stc03005	stc03005	ggp015	???
stc03 (9)	st016	A	stc03006	stc03006	stc03006	ggp015	???
stc03 (9)	st017	B	stc03007	stc03007	stc03007	ggp015	???
stc03 (9)	st018	C	stc03008	stc03008	stc03008	ggp015	???
stc03 (9)	st019	A	stc03009	stc03009	stc03009	ggp015	???
stc03 (9)	st020	B	stc03010	stc03010	stc03010	ggp015	???
stc03 (9)	st021	C	stc03011	stc03011	stc03011	ggp015	???
stc03 (9)	st022	A	stc03012	stc03012	stc03012	ggp015	???
stc03 (9)	st023	B	stc03013	stc03013	stc03013	ggp015	???
stc03 (9)	st024	C	stc03014	stc03014	stc03014	ggp015	???
stc03 (9)	st025	A	stc03015	stc03015	stc03015	ggp015	???
stc03 (9)	st026	B	stc03016	stc03016	stc03016	ggp015	???
stc03 (9)	st027	C	stc03017	stc03017	stc03017	ggp015	???
stc03 (9)	st028	A	stc03018	stc03018	stc03018	ggp015	???
stc03 (9)	st029	B	stc03019	stc03019	stc03019	ggp015	???
stc03 (9)	st030	C	stc03020	stc03020	stc03020	ggp015	???
stc03 (9)	st031	A	stc03021	stc03021	stc03021	ggp015	???
stc03 (9)	st032	B	stc03022	stc03022	stc03022	ggp015	???
stc03 (9)	st033	C	stc03023	stc03023	stc03023	ggp015	???
stc03 (9)	st034	A	stc03024	stc03024	stc03024	ggp015	???
stc03 (9)	st035	B	stc03025	stc03025	stc03025	ggp015	???
stc03 (9)	st036	C	stc03026	stc03026	stc03026	ggp015	???
stc03 (9)	st037	A	stc03027	stc03027	stc03027	ggp015	???
stc03 (9)	st038	B	stc03028	stc03028	stc03028	ggp015	???
stc03 (9)	st039	C	stc03029	stc03029	stc03029	ggp015	???
stc03 (9)	st040	A	stc03030	stc03030	stc03030	ggp015	???
stc03 (9)	st041	B	stc03031	stc03031	stc03031	ggp015	???
stc03 (9)	st042	C	stc03032	stc03032	stc03032	ggp015	???
stc03 (9)	st043	A	stc03033	stc03033	stc03033	ggp015	???
stc03 (9)	st044	B	stc03034	stc03034	stc03034	ggp015	???
stc03 (9)	st045	C	stc03035	stc03035	stc03035	ggp015	???
stc03 (9)	st046	A	stc03036	stc03036	stc03036	ggp015	???
stc03 (9)	st047	B	stc03037	stc03037	stc03037	ggp015	???
stc03 (9)	st048	C	stc03038	stc03038	stc03038	ggp015	???
stc03 (9)	st049	A	stc03039	stc03039	stc03039	ggp015	???
stc03 (9)	st050	B	stc03040	stc03040	stc03040	ggp015	???
stc03 (9)	st051	C	stc03041	stc03041	stc03041	ggp015	???
stc03 (9)	st052	A	stc03042	stc03042	stc03042	ggp015	???
stc03 (9)	st053	B	stc03043	stc03043	stc03043	ggp015	???
stc03 (9)	st054	C	stc03044	stc03044	stc03044	ggp015	???
stc03 (9)	st055	A	stc03045	stc03045	stc03045	ggp015	???
stc03 (9)	st056	B	stc03046	stc03046	stc03046	ggp015	???
stc03 (9)	st057	C	stc03047	stc03047	stc03047	ggp015	???
stc03 (9)	st058	A	stc03048	stc03048	stc03048	ggp015	???
stc03 (9)	st059	B	stc03049	stc03049	stc03049	ggp015	???
stc03 (9)	st060	C	stc03050	stc03050	stc03050	ggp015	???
stc03 (9)	st061	A	stc03051	stc03051	stc03051	ggp015	???
stc03 (9)	st062	B	stc03052	stc03052	stc03052	ggp015	???

ENX Version: 3.5.1

Device Message: anode56m1 reach launcher, ggp000 Get GGP State Error -> GGP server is not reachable, anode56m2 reach launcher, ggp005 Get GGP State Error -> GGP server is not reachable, anode56m3 reach launcher, ggp010 Get GGP State Error -> GGP server is not reachable, anode56m4 reach launcher, ggp015 Get GGP State Error -> GGP server is not reachable, anode56m5 reach launcher, ggp020 Get GGP State Error -> GGP server is not reachable, anode56m6 reach launcher, ggp025 Get GGP State Error -> GGP server is not reachable, anode56m7 reach launcher, ggp030 Get GGP State Error -> GGP server is not reachable, anode56m8 reach launcher, ggp035 Get GGP State Error -> GGP server is not reachable, anode56m9 reach launcher, ggp040 Get GGP State Error -> GGP server is not reachable, anode56m10 reach launcher, ggp045 Get GGP State Error -> GGP server is not reachable, anode56m11 reach launcher, ggp050 Get GGP State Error -> GGP server is not reachable, anode56m12 reach launcher, ggp055 Get GGP State Error -> GGP server is not reachable, anode56m13 reach launcher, ggp060 Get GGP State Error -> GGP server is not reachable, anode56m14 reach launcher, ggp065 Get GGP State Error -> GGP server is not reachable, anode56m15 reach launcher, ggp070 Get GGP State Error -> GGP server is not reachable, anode56m16 reach launcher, ggp075 Get GGP State Error -> GGP server is not reachable, anode56m17 reach launcher, ggp080 Get GGP State Error -> GGP server is not reachable, anode56m18 reach launcher, ggp085 Get GGP State Error -> GGP server is not reachable, anode56m19 reach launcher, ggp090 Get GGP State Error -> GGP server is not reachable, anode56m20 reach launcher, ggp095 Get GGP State Error -> GGP server is not reachable, anode56m21 reach launcher, ggp100 Get GGP State Error -> GGP server is not reachable, anode56m22 reach launcher, ggp105 Get GGP State Error -> GGP server is not reachable, anode56m23 reach launcher, ggp110 Get GGP State Error -> GGP server is not reachable, anode56m24 reach launcher, ggp115 Get GGP State Error -> GGP server is not reachable, anode56m25 reach launcher, ggp120 Get GGP State Error -> GGP server is not reachable, anode56m26 reach launcher, ggp125 Get GGP State Error -> GGP server is not reachable, anode56m27 reach launcher, ggp130 Get GGP State Error -> GGP server is not reachable, anode56m28 reach launcher, ggp135 Get GGP State Error -> GGP server is not reachable, anode56m29 reach launcher, ggp140 Get GGP State Error -> GGP server is not reachable, anode56m30 reach launcher, ggp145 Get GGP State Error -> GGP server is not reachable, anode56m31 reach launcher, ggp150 Get GGP State Error -> GGP server is not reachable, anode56m32 reach launcher, ggp155 Get GGP State Error -> GGP server is not reachable, anode56m33 reach launcher, ggp160 Get GGP State Error -> GGP server is not reachable, anode56m34 reach launcher, ggp165 Get GGP State Error -> GGP server is not reachable, anode56m35 reach launcher, ggp170 Get GGP State Error -> GGP server is not reachable, anode56m36 reach launcher, ggp175 Get GGP State Error -> GGP server is not reachable, anode56m37 reach launcher, ggp180 Get GGP State Error -> GGP server is not reachable, anode56m38 reach launcher, ggp185 Get GGP State Error -> GGP server is not reachable, anode56m39 reach launcher, ggp190 Get GGP State Error -> GGP server is not reachable, anode56m40 reach launcher, ggp195 Get GGP State Error -> GGP server is not reachable, anode56m41 reach launcher, ggp200 Get GGP State Error -> GGP server is not reachable, anode56m42 reach launcher, ggp205 Get GGP State Error -> GGP server is not reachable, anode56m43 reach launcher, ggp210 Get GGP State Error -> GGP server is not reachable, anode56m44 reach launcher, ggp215 Get GGP State Error -> GGP server is not reachable, anode56m45 reach launcher, ggp220 Get GGP State Error -> GGP server is not reachable, anode56m46 reach launcher, ggp225 Get GGP State Error -> GGP server is not reachable, anode56m47 reach launcher, ggp230 Get GGP State Error -> GGP server is not reachable, anode56m48 reach launcher, ggp235 Get GGP State Error -> GGP server is not reachable, anode56m49 reach launcher, ggp240 Get GGP State Error -> GGP server is not reachable, anode56m50 reach launcher, ggp245 Get GGP State Error -> GGP server is not reachable, anode56m51 reach launcher, ggp250 Get GGP State Error -> GGP server is not reachable, anode56m52 reach launcher, ggp255 Get GGP State Error -> GGP server is not reachable, anode56m53 reach launcher, ggp260 Get GGP State Error -> GGP server is not reachable, anode56m54 reach launcher, ggp265 Get GGP State Error -> GGP server is not reachable, anode56m55 reach launcher, ggp270 Get GGP State Error -> GGP server is not reachable, anode56m56 reach launcher, ggp275 Get GGP State Error -> GGP server is not reachable, anode56m57 reach launcher, ggp280 Get GGP State Error -> GGP server is not reachable, anode56m58 reach launcher, ggp285 Get GGP State Error -> GGP server is not reachable, anode56m59 reach launcher, ggp290 Get GGP State Error -> GGP server is not reachable, anode56m60 reach launcher, ggp295 Get GGP State Error -> GGP server is not reachable, anode56m61 reach launcher, ggp300 Get GGP State Error -> GGP server is not reachable, anode56m62 reach launcher, ggp305 Get GGP State Error -> GGP server is not reachable, anode56m63 reach launcher, ggp310 Get GGP State Error -> GGP server is not reachable, anode56m64 reach launcher, ggp315 Get GGP State Error -> GGP server is not reachable, anode56m65 reach launcher, ggp320 Get GGP State Error -> GGP server is not reachable, anode56m66 reach launcher, ggp325 Get GGP State Error -> GGP server is not reachable, anode56m67 reach launcher, ggp330 Get GGP State Error -> GGP server is not reachable, anode56m68 reach launcher, ggp335 Get GGP State Error -> GGP server is not reachable, anode56m69 reach launcher, ggp340 Get GGP State Error -> GGP server is not reachable, anode56m70 reach launcher, ggp345 Get GGP State Error -> GGP server is not reachable, anode56m71 reach launcher, ggp350 Get GGP State Error -> GGP server is not reachable, anode56m72 reach launcher, ggp355 Get GGP State Error -> GGP server is not reachable, anode56m73 reach launcher, ggp360 Get GGP State Error -> GGP server is not reachable, anode56m74 reach launcher, ggp365 Get GGP State Error -> GGP server is not reachable, anode56m75 reach launcher, ggp370 Get GGP State Error -> GGP server is not reachable, anode56m76 reach launcher, ggp375 Get GGP State Error -> GGP server is not reachable, anode56m77 reach launcher, ggp380 Get GGP State Error -> GGP server is not reachable, anode56m78 reach launcher, ggp385 Get GGP State Error -> GGP server is not reachable, anode56m79 reach launcher, ggp390 Get GGP State Error -> GGP server is not reachable, anode56m80 reach launcher, ggp395 Get GGP State Error -> GGP server is not reachable, anode56m81 reach launcher, ggp400 Get GGP State Error -> GGP server is not reachable, anode56m82 reach 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Infrastructure: Detector and Mechanical



Muscade GUI for the Autofill system

•LN2 Autofill system:

Excellent stability of the system.

LN2 Autofill system is working stable including the last Detector PT100 readout upgrade.

A major upgrade will be needed in the autofill for Phase 2 (Starting 2020). Estimated development time: ~ 2 year

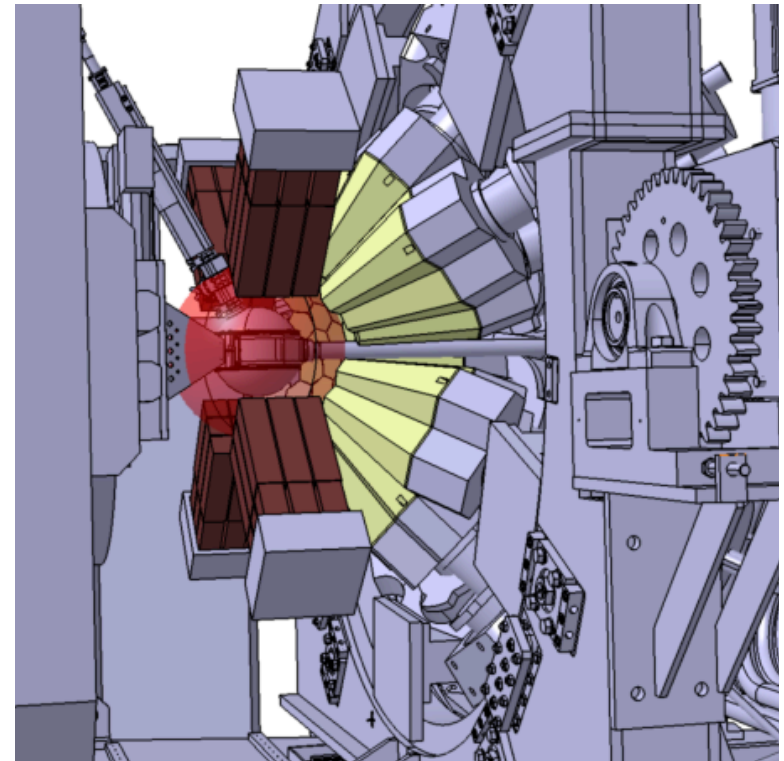
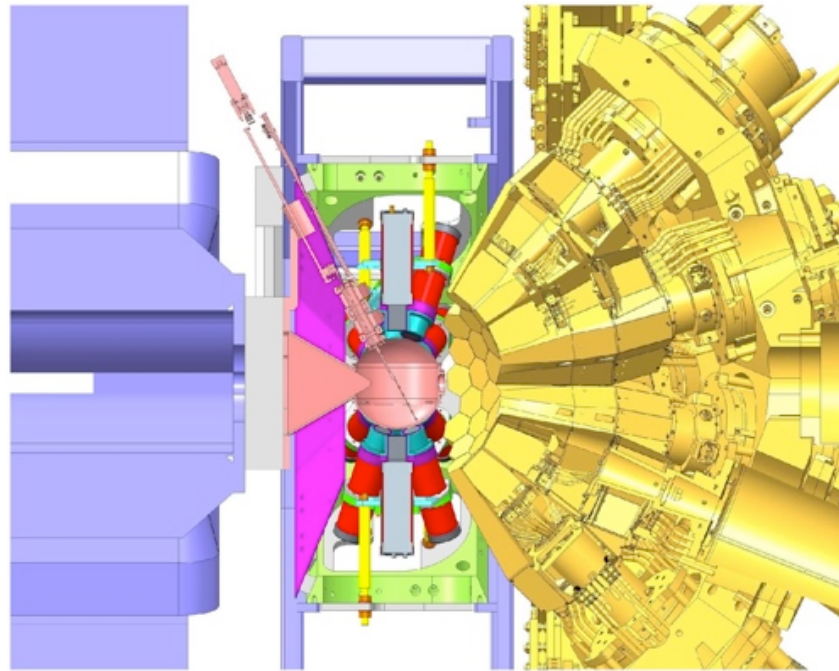
•HV system

We are using >20 years old CAEN mainframes and HV cards.

HV upgrade on Stand-by until funds are available.

- Detector and Mechanical infrastructures almost ready for 15 ATCs.
- Few Items needed to complete the 15 Cluster infrastructures, mainly cabling. Procurement started
- Maintenance and improvement of Cabling as well as other detector infrastructures on-going.

Complementary Detectors Coordination



- The integration work of FATIMA and PARIS has been followed by the team.
- Now focussing on the status of the integration of NEDA and DIAMANT for the 2018 campaign.
- Mechanical Infrastructures Team (STFC) working with the Complementary instrumentation collaborations for the integration into the AGATA set-up

AGATA PSA & Data Analysis

Pulse Shape Analysis and *Detector Characterization*:

- ADL work ongoing at Uni.Liverpool and IKP-Cologne. Using different detector geometries to have a good insight on mobility parameters.
- An AGATA simulated basis data set is being generated, with the GRETINA methodology, in order to process AGATA data through the GRETINA signal decomposing algorithms with multiple interaction in a segment PSA

Tracking:

- Discussion on-going with the PSA team the tracking on AGATA and the impact of position uniformity on the algorithm performance.
- Planned to include the position determination unaccuracy in the tracking procedure.

Data Analysis

- O. Stezowski, T.Lauritsen, A.Korichi working on the GRETINA and AGATA data format translation. Goal to share both analysis software.
- The “Cubix” software is now available. Cubix is an adaptable spectroscopy analysis tool based on Root and developed by G. Macquart, J. Dudouet.
- Successful AGATA-VAMOS campaign hands-on Data Analysis meeting organized by GANIL. Planning for a new one on-going



AGATA-GRETINA Workshop on Data Analysis



The AGATA-GRETINA Data Analysis Workshop was organized by A.Korichi from the AGATA collaboration and T.Lauritsen from the GRETINA.

Programme and Slides are available on web site:

<https://indico.in2p3.fr/event/13409/other-view?view=standard>

- Reports on the status and plans for the instruments were presented but, most important the status of PSA and Tracking, Simulations and Data Analysis. Time devoted to discussions and decisions to collaborate, was a major achievement of the workshop.
- Distributed the conclusions of the Workshop and definition of a plan for “Working Together” is ongoing.
- Next Workshop announced on 4th to the 6th of April 2018 in Paris, France.

General Documentation for the AGATA users

- Activity taken by the Data Flow and Data Analysis Working Groups. The goal is to have a document that allows AGATA users to run an experiment and perform the data analysis in a coherent manner.
- Presently revising the existing documentation: Installation of the software and actors, data analysis programs etc... For example:
 - D. Bazzacco documentation (AGATA @LNL campaign) has sections on how to extract the x-talk coefficients etc.
 - Hongje Li and R. Perez-Vidal produced document on the calibration, cross-talk coefficient generation and treatment of missing segment.
 - N.Lalovic has produced notes on the difficulties encountered with the AGATA system and some specifics on issues with ancillary systems such as the PRESPEC packages, also produced a document on n-damage correction.
- J.Ljungvall and O. Stézowski will collect and merge existing documentation.
- A. Korichi and A. Boston are involved in producing this document. Soon a draft document will be circulated to experts.



Simulations, Experimental Commissioning and Performance

AGATA Performance:

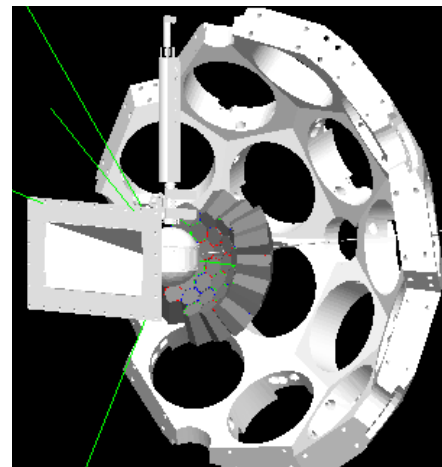
- New Performance Team co-leader appointed
- Aiming to finalize the analysis of the performance source test done at GANIL.
- Understanding the issues comparing measured and simulated efficiencies.
- Efficiencies mismatch with in-beam experiments with high multiplicity

AGATA Simulations

- New simulations performed about efficiency and P/T, to be compared to GSI and GANIL Data, including dead layers.
- On-going more realistic implementation of the detector geometry and the discussion on the effect of the segmentation and the fields due to the segmentation and pasivated zones.

Experimental Commissioning

- Working on the commissioning of AGATA coupled with complementary instrumentation: NEDA + DIAMAN, MUGAST, VAMOS-GFM





Outlook:

- AGATA is presently in the Phase 1 MoU extension: 2016-2020
Several milestones:
 - Maintenance and upgrades
 - 45 Capsules instrumented in the set-up within 2018
 - DCOD DAQ upgrade, GEC/Topology Manager Upgrade,
 - Improvements on PSA, Tracking, Data analysis, Simulations, Understanding and commissioning the set-ups
 - Continue with the completion of the Phase 1 MoU.
(Note that only limited funds available).
- Phase 2 (AGATA 180) requires preparation: Draft of the Phase 2 project definition to be prepared within Spring 2018
Guidelines:
 - Upgrading the AGATA subsystems
 - Improving Mobility of AGATA
 - Sustainable construction of the 180 capsule set-up.



Acknowledgement to all the AGATA Collaborators

Thank You!



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Una manera de hacer Europa

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