



The AGATA Demonstrator Array at LNL: status of the project



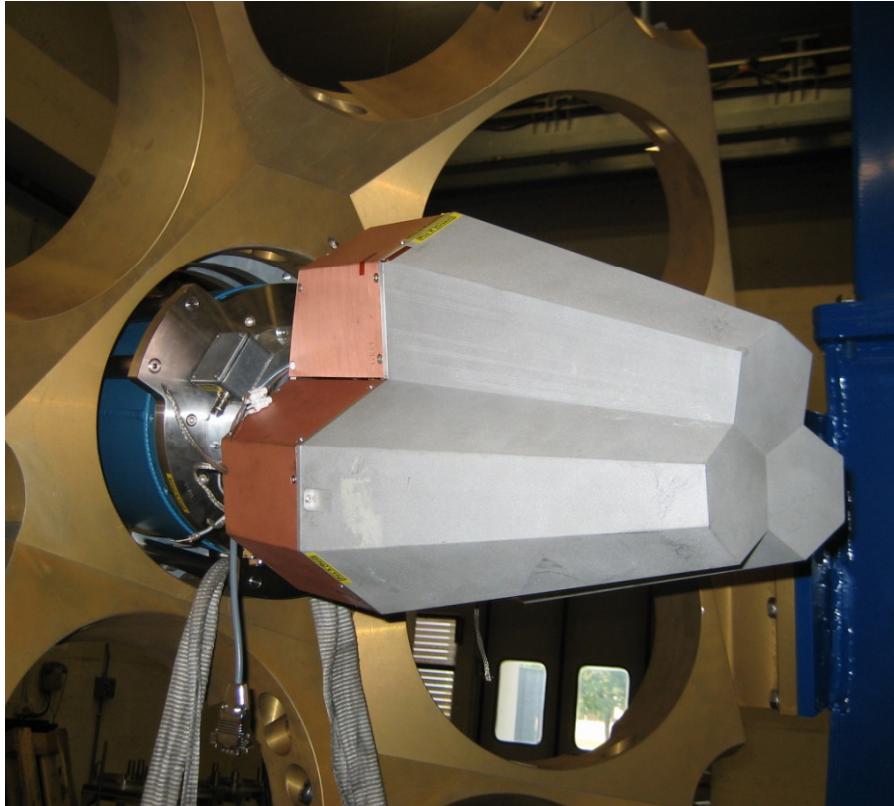
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On behalf of the AGATA Collaboration

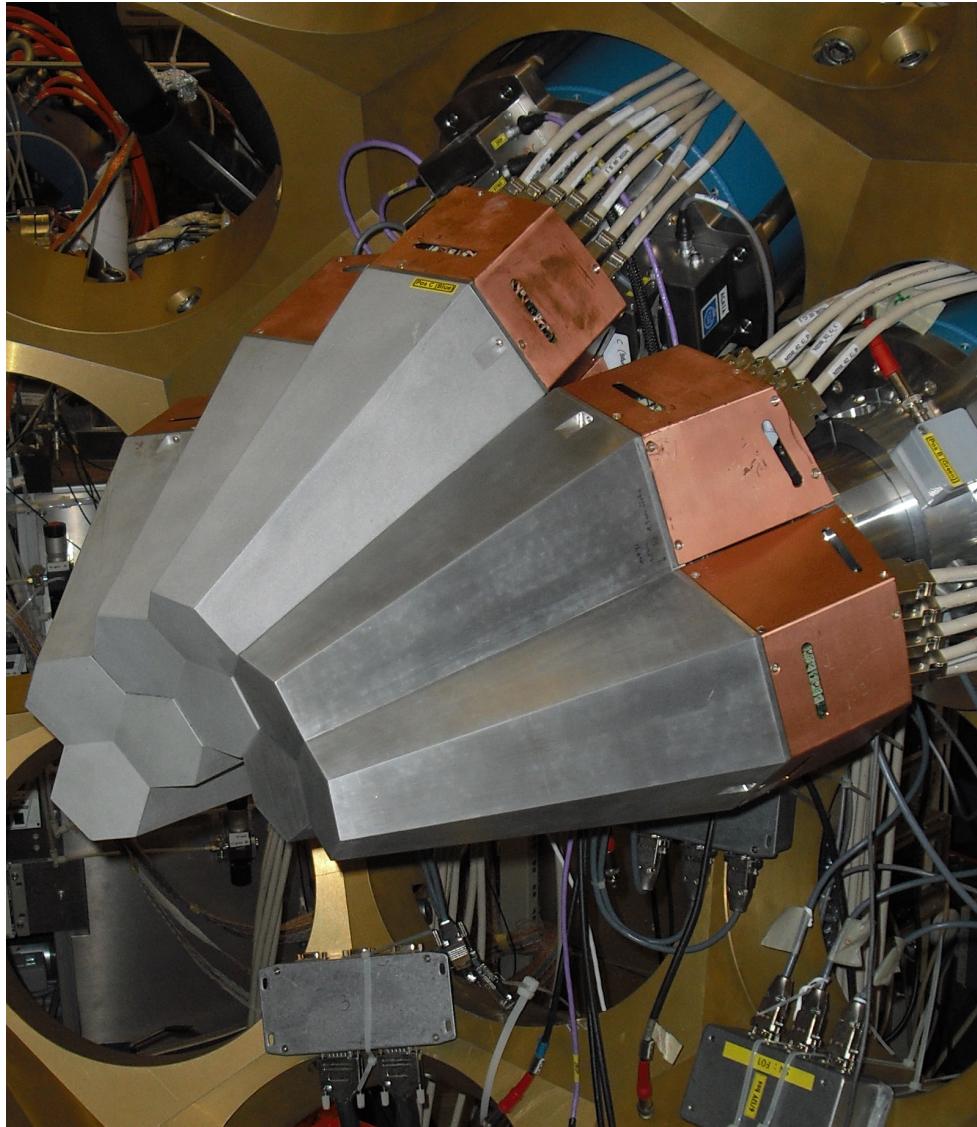
1. The Demonstrator Array at LNL: status of the installation
2. The near future

One year ago ...



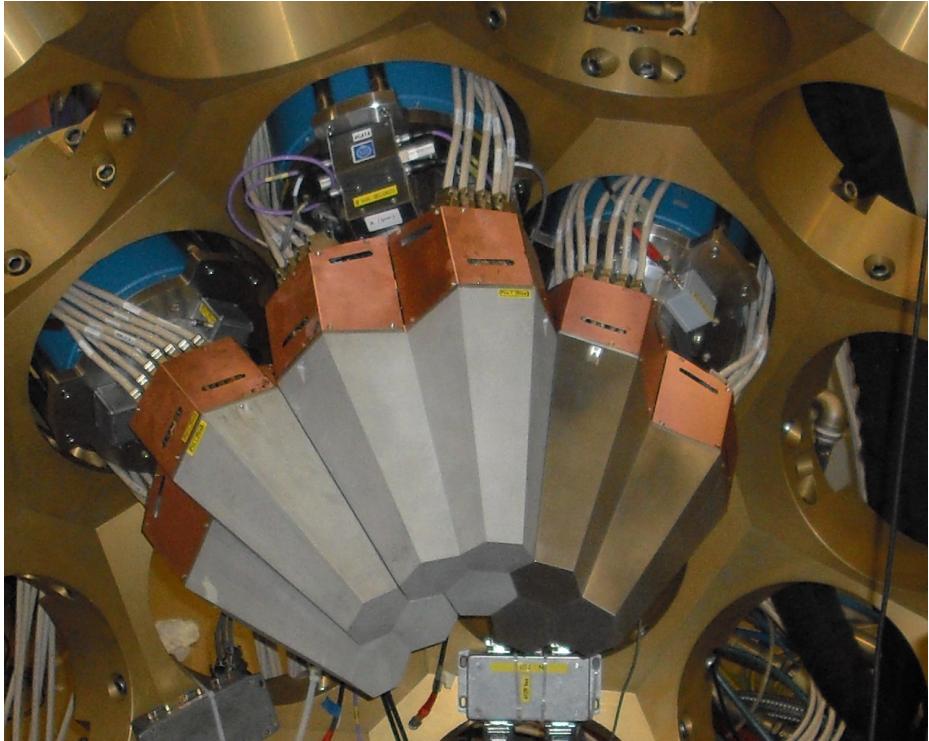
- Only ATC1 available
- Autofill system
- No AXIS power supplies
- Digitizers available
- Preprocessing partially available
- Narval
- No user-friendly interfaces

Today



- Three detectors
- Autofill system
- AXIS power supplies
- Digitizers
- Preprocessing
- GTS tree
- AGAVA
- Narval
- Almost user-friendly interfaces

The detectors



- ATC1@LNL since Jul08, mounted Dec08
- ATC2@LNL since Jul09, mounted Jul09
- ATC3@LNL since Dec09, mounted Dec09
- Only a few segments missing!
- Good energy resolution
- ATC1 and ATC2 survived accidental warmup (ATC1 recently repumped because of bad vacuum in the cryostat)

Autofill system



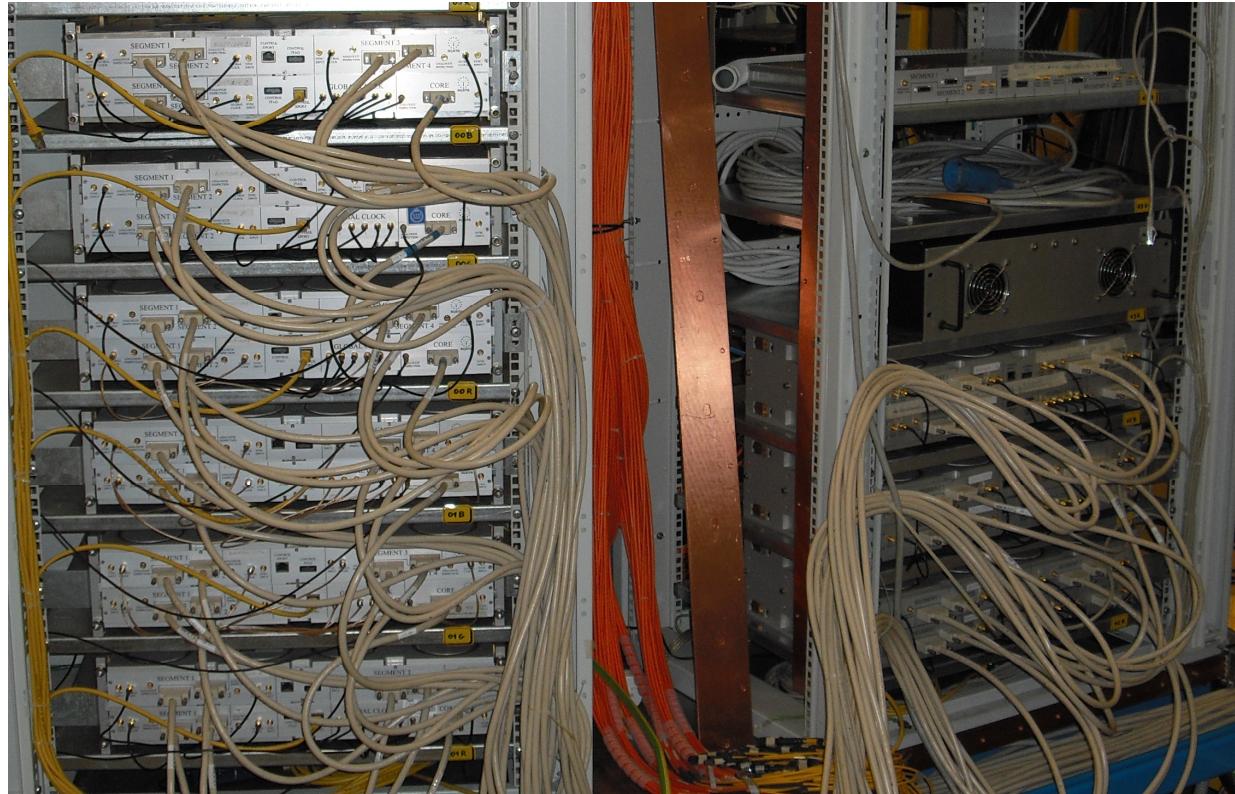
- Autofill in reliable operation since Dec08 despite missing final VCC
- Only problem so far (human mistake triggered by GUI bug) lead to accidental warmup of ATC1 and ATC2 in Nov09

Power supplies



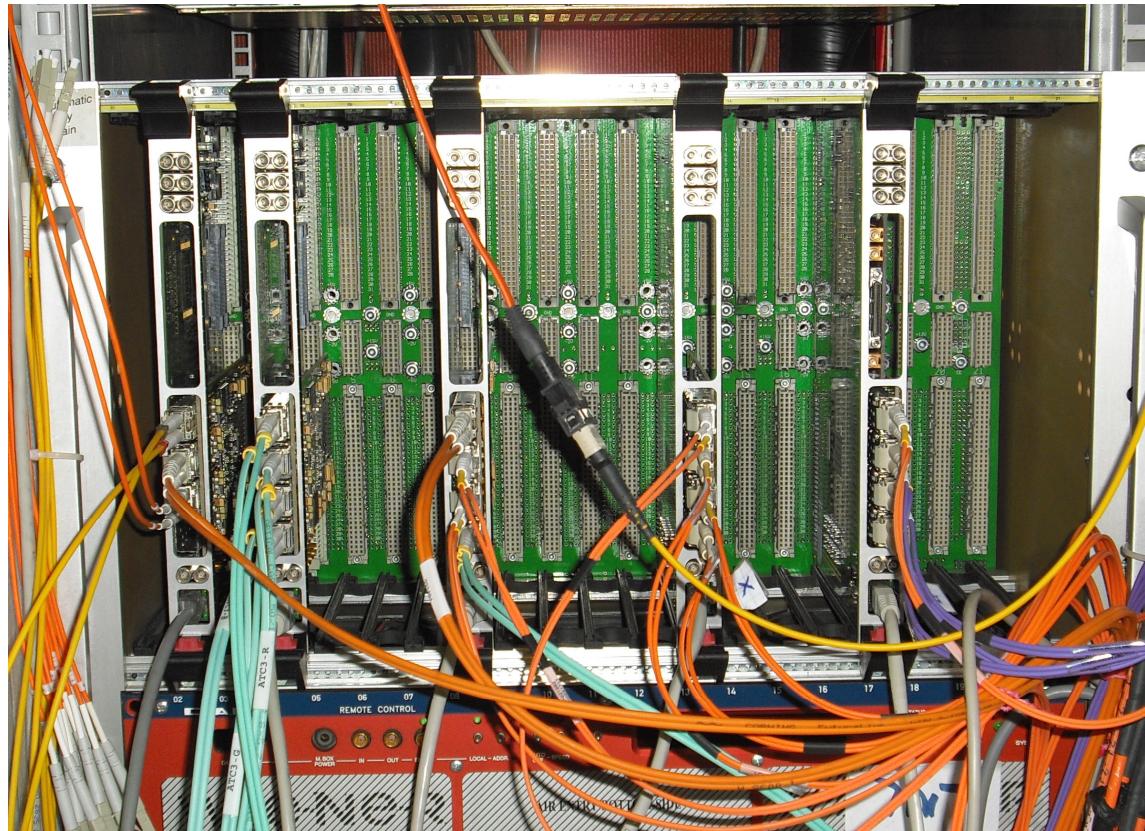
- First AXIS power supply installed Feb09
- Second AXIS power supply installed Sep09
- Other three power supplies installed between Nov09 and Dec09

Digitizers



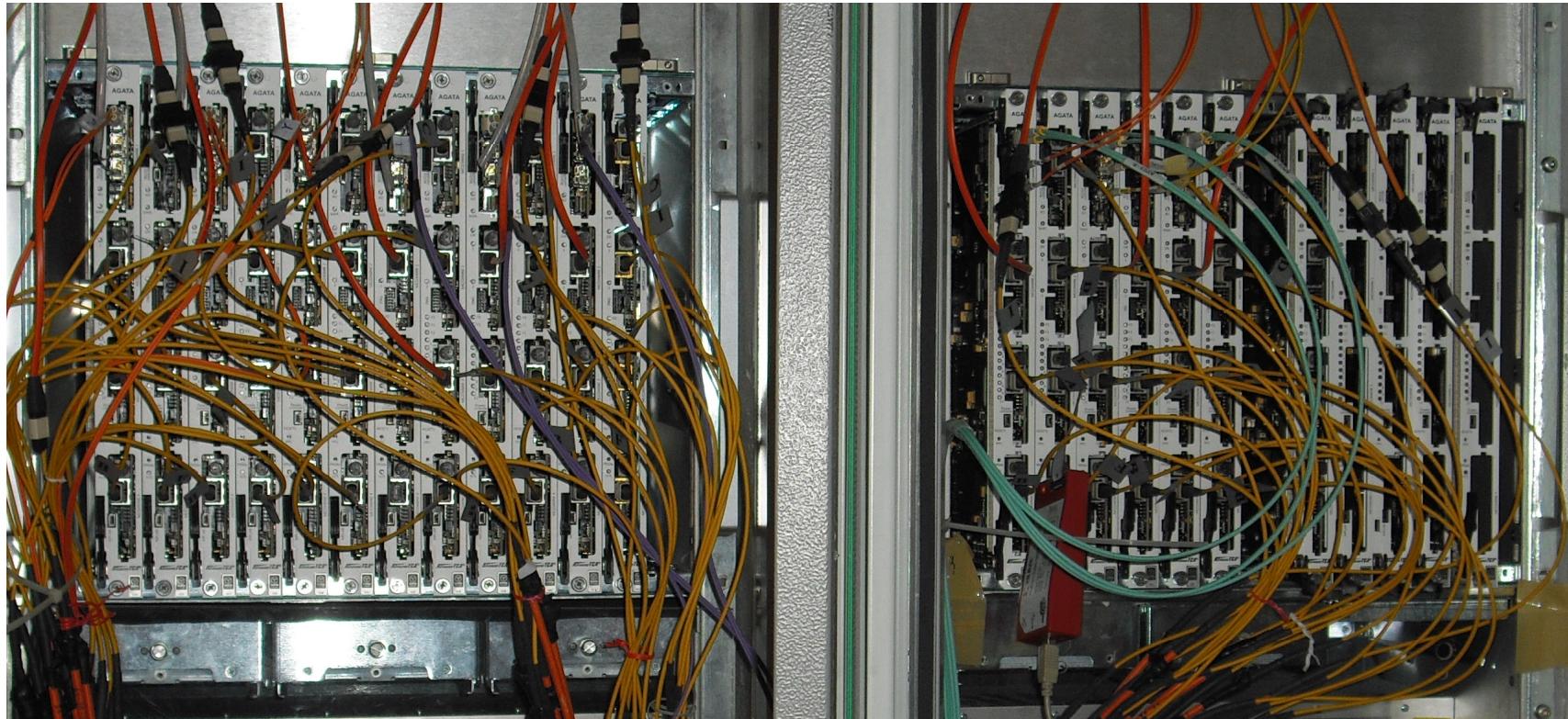
- 9 digitizers installed
- Prototype available
- 1 extra digitizer just delivered

GTS



- 14 (+1) mezzanines in use
- Other mezzanines already produced, under test
- GTS tree capable of handling the whole Demonstrator

Preprocessing



- 17 carriers, 69 mezzanines, 14 TCLK, 18 Linco available
- Huge improvements with slow control!

Computing farm



- 26 pizza boxes
- Almost 108TB storage space
- Narval running for on-line and off-line data analysis (PSA, tracking, ...)

Ancillary detectors



- The AGAVA interface has been commissioned and used in-beam

General schedule of the AGATA-Demonstrator at LNL

- 2008, second half
 - Commissioning of infrastructure (PSU, DSS, ...)
 - Installation of first detector(s)
 - Commissioning of electronics and DAQ with one triple cluster using radioactive sources
- 2009
 - Installation of remaining detectors
 - Series production of electronics
 - Commissioning with at least 3 triple clusters
 - Coupling to PRISMA and other ancillary detectors
 - First in-beam experiments
- 2010
 - Experimental campaign using the PIAVE+ALPI beams

The Commissioning runs

- Week 12: ^{30}Si @70MeV+ ^{12}C fusion-evaporation, AGATA only
 - Solved issues with software and detector positioning
- Week 27: ^{56}Fe @220MeV+ ^{197}Au Coulomb excitation, AGATA+DANTE
 - Optimisation of the signal basis
- Week 43: ^{32}S @130MeV+ ^{110}Pd fusion-evaporation
 - First in-beam test with AGAVA
 - High-multiplicity events
- Weeks 46 and 49: ^{58}Ni @ ^{96}Zr multinucleon transfer, AGATA+PRISMA
 - Optimisation of the software and DAQ setup

The near future

- A new commissioning run is scheduled 8-12 Feb
- The LNL deadline to submit proposals to the PAC is approaching! (31 Jan 2010)
- Several drafts received so far for technical evaluation:
 - 4 AGATA+PRISMA+DANTE
 - 11 AGATA+PRISMA+plunger
 - 1 AGATA+PRISMA+LaBr3
 - 1 AGATA+PRISMA+HELENA
 - 1 source experiment (AGATA only)

Outlook



- The installation of the AGATA Demonstrator Array at Legnaro has advanced significantly in the past months
- Five commissioning runs have been carried out (some with more success than the others ...)
- Lots remains to be done, but we are indeed on the good way to success
- The whole Collaboration contributed to this and should continue doing this!

Outlook



My personal thanks (and I am sure this is the feeling of the whole AMB and ASC) to all of the collaborators for making all of this possible!