

Status report Cologne, AGATA detectors and cryostats

B. Birkenbach, J. Eberth, [H. Hess](#), R. Hirsch, P. Reiter, D. Schneiders

IKP Cologne

H.-G. Thomas – CTT Montabaur



CAT - experimental setup and specifications

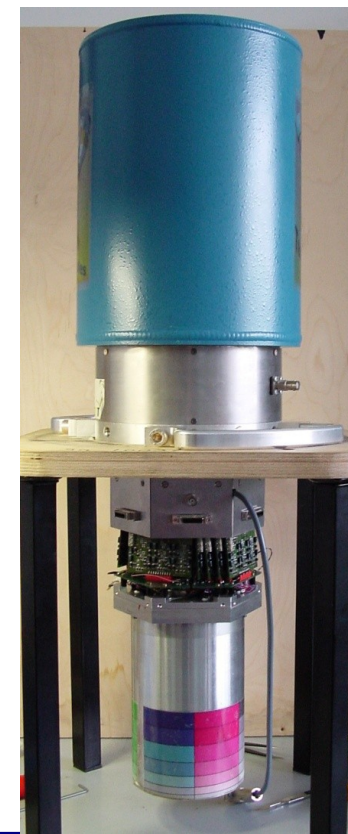
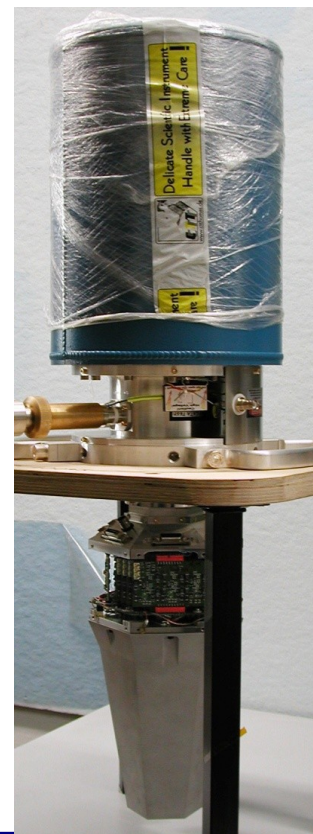
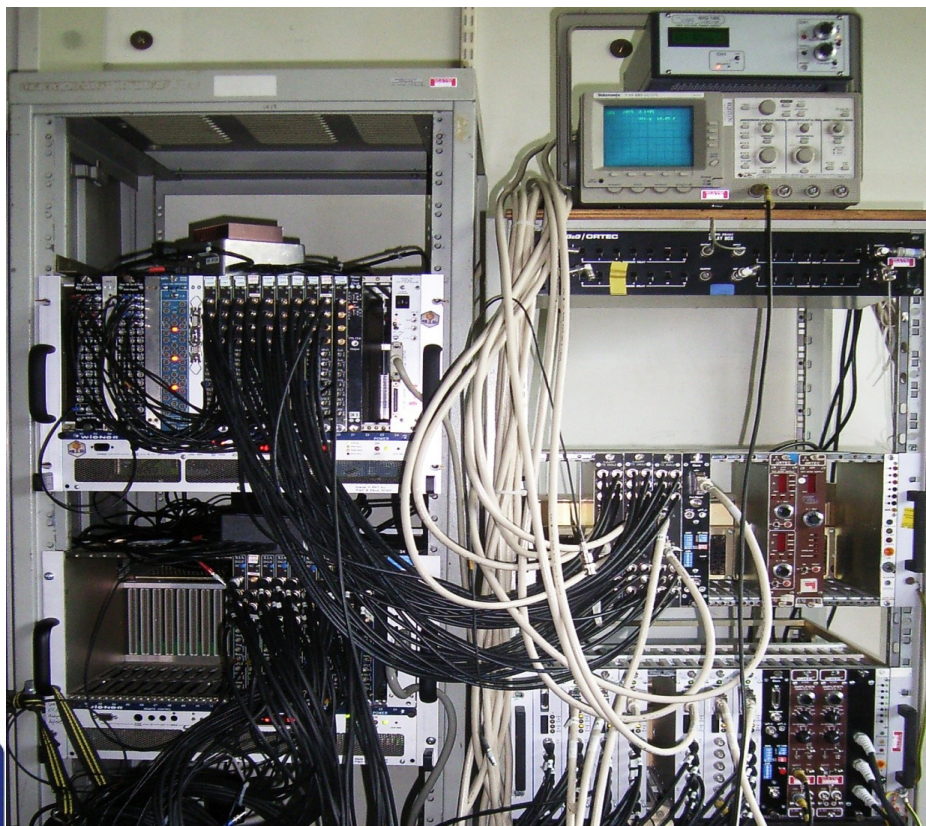
Core FWHM

@ 1.3 MeV: $\Delta E < 2.35$ keV
@ 122 keV : $\Delta E < 1.35$ keV

Crosstalk < 0.1 %

Segments FWHM

@ 1.3 MeV: $\Delta E < 2.30$ keV, mean < 2.10 keV
@ 60 keV : $\Delta E < 1.30$ keV, mean < 1.20 keV



Test results capsule B007 - 74208

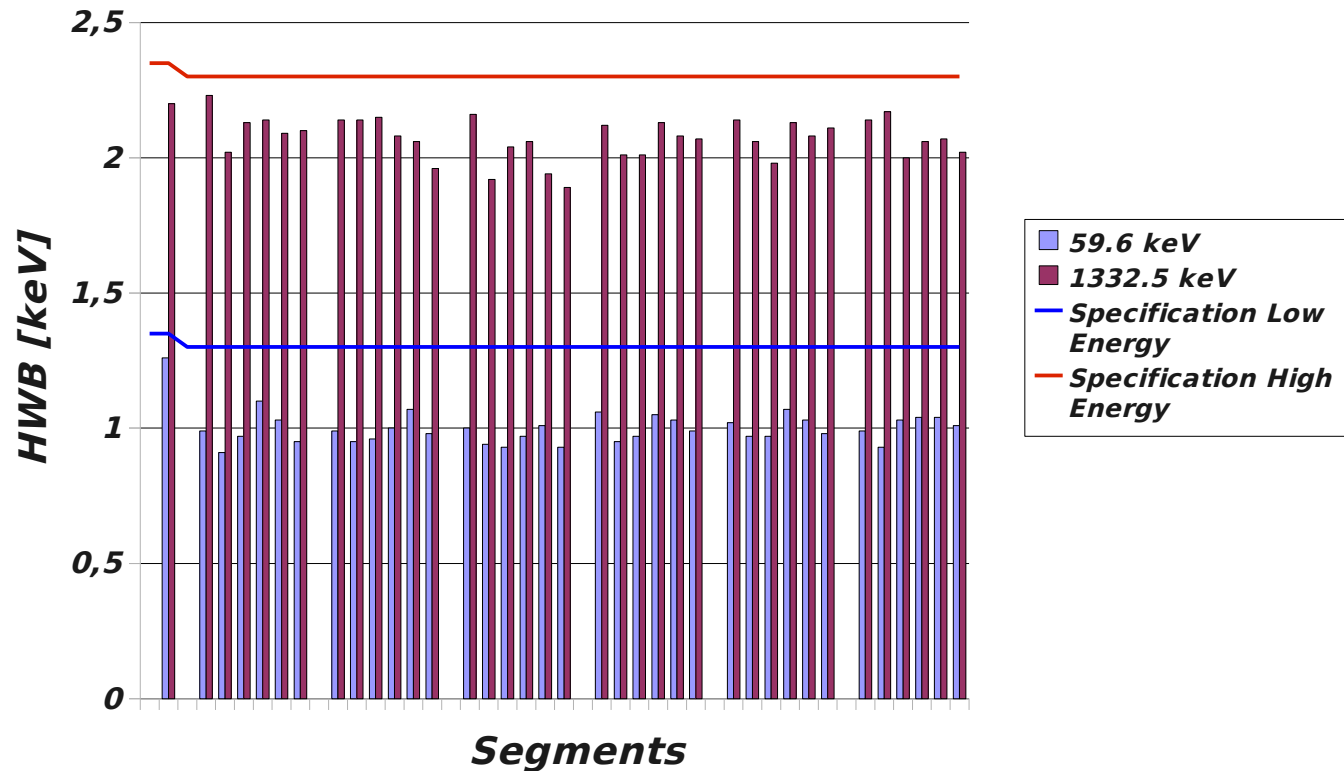
B007-74208

Core FWHM:

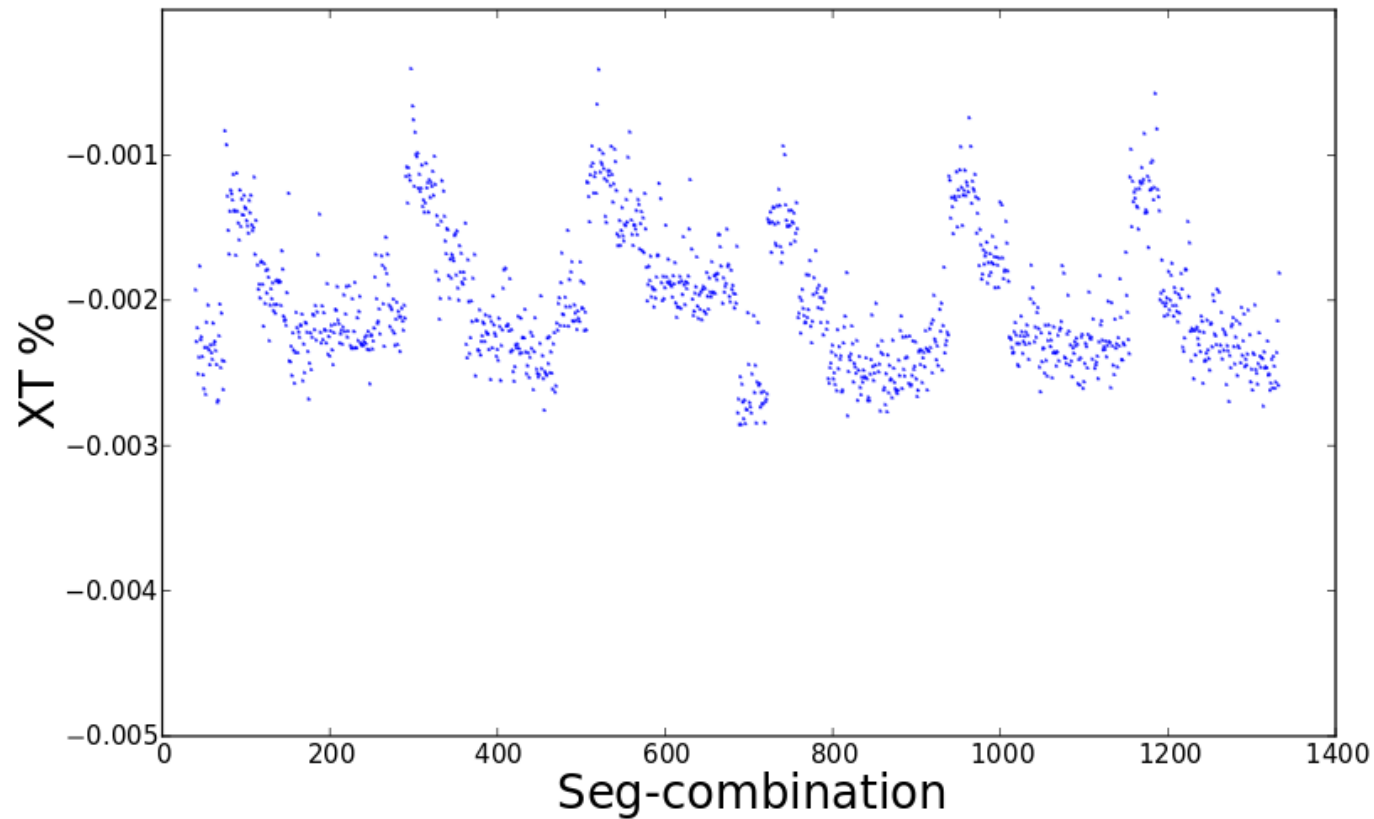
@ 122 keV: $\Delta E = 1.26$ keV
@ 1332 keV: $\Delta E = 2.21$ keV

Segments average FWHM

@ 60 keV: $\Delta E = 0.995$ keV
@ 1332 keV: $\Delta E = 2.075$ keV



Crosstalk of capsule B007 - 74208



Crosstalk within specification

Detector accepted

Test results capsule C007 - 74164

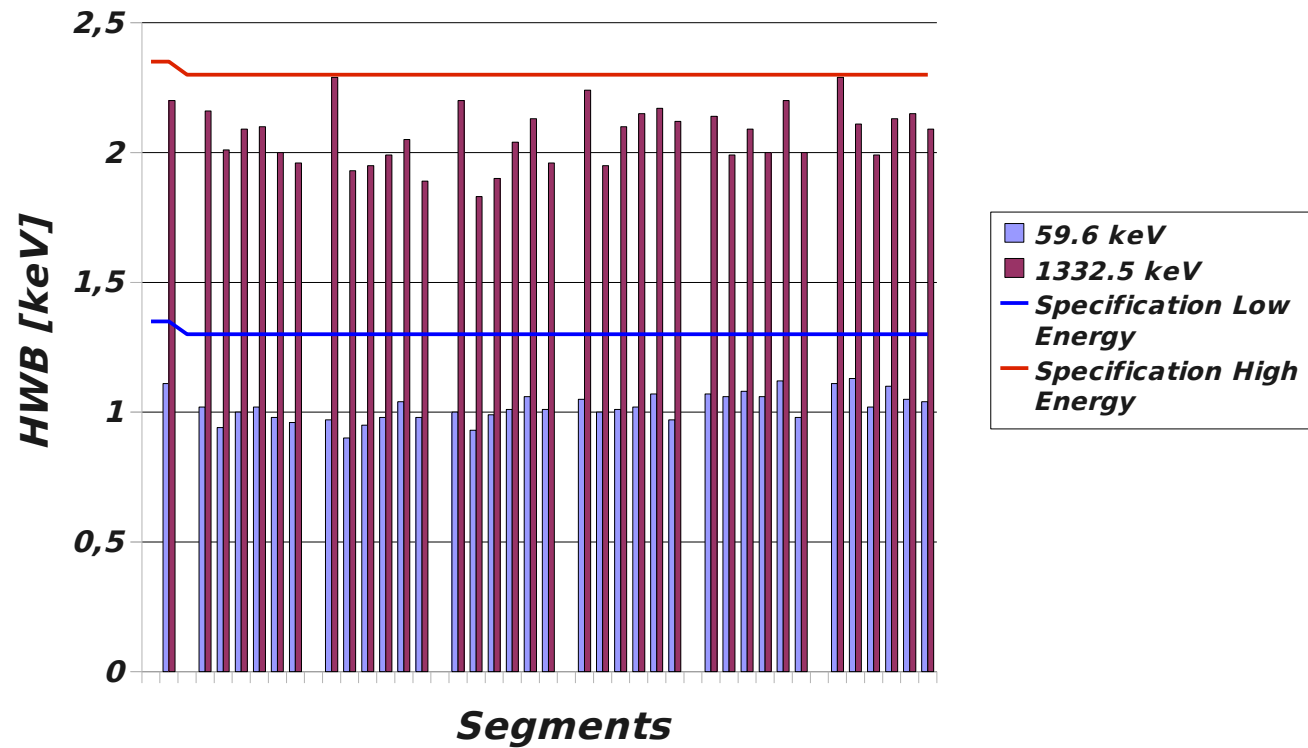
C007-74164

core FWHM:

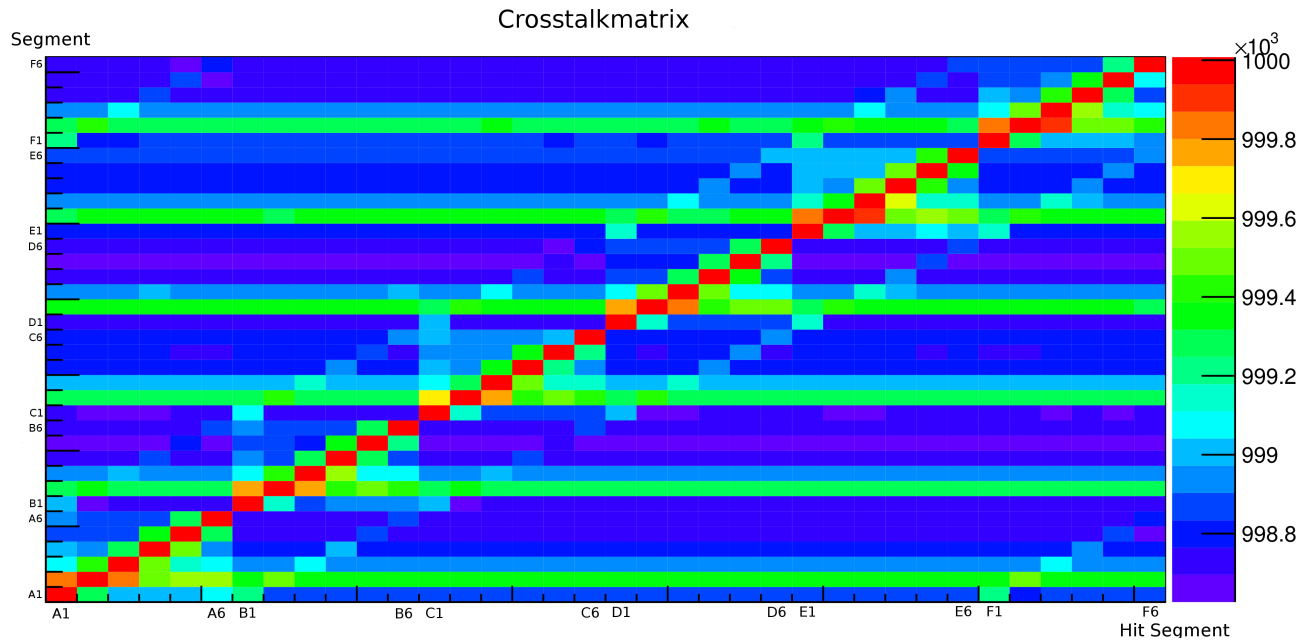
@ 122 keV: $\Delta E = 1.11$ keV
@ 1332 keV: $\Delta E = 2.28$ keV

Segments average FWHM:

@ 60 keV: $\Delta E = 1.019$ keV
@ 1332 keV: $\Delta E = 2.071$ keV

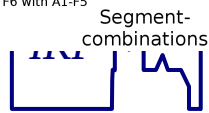
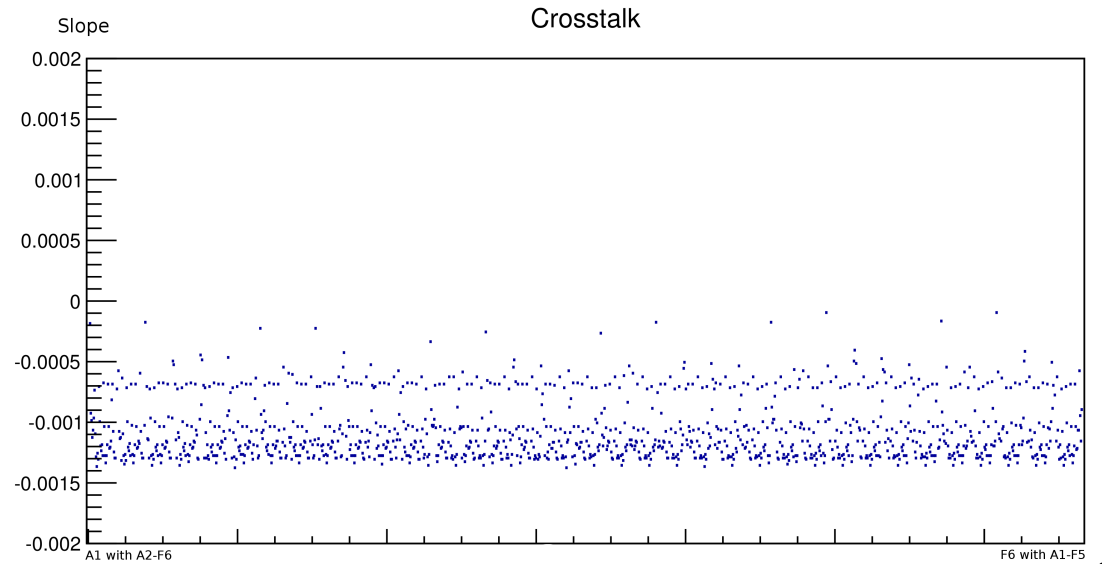


Crosstalk of capsule C007 with PIXIE



Crosstalk within specification

Detector accepted



Status of test cryostat for electronic tests (Legnaro)

Dewar of test cryostat TC5 has a vacuum leak

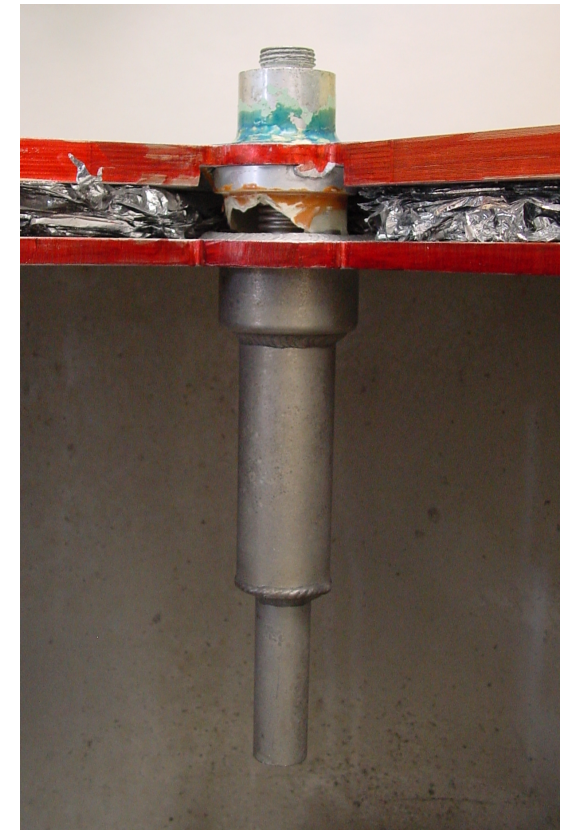
Leak on the filling tube of the dewar

Weak point is the glue between inner and external dewar

Avoid any force on the filling adapters

S002 mounted in TC7 for delivery to Legnaro
(tests for AGATA electronics)

Tests ongoing



Overview of detectors and cryostats in Cologne

5 detectors: A006, A007, A009

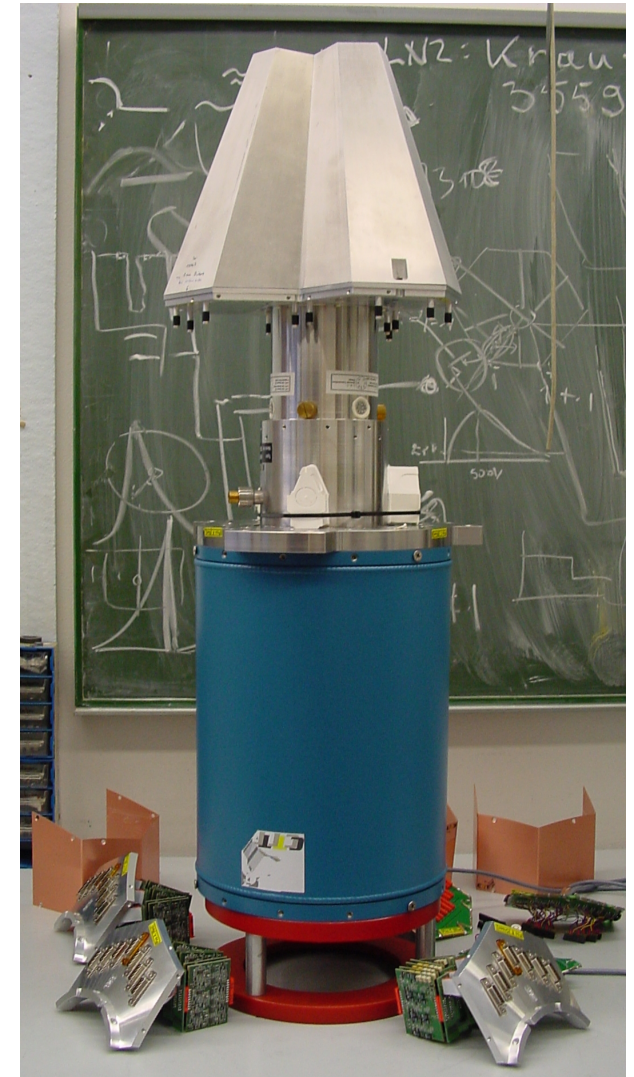
B007

C007

Cryostat:

ATC4: dewar replaced, ready for mounting
of detectors

ADC4: ready for mounting of detectors



Summary

2 detectors tested since last AGATA week, both accepted

S002 mounted in TC7 tests ongoing

5 detectors 3xA-Type, 1xB-Type, 1xC-Type available

Hardware for one new ATC and one new ADC available

Next step: assembly of ATC4

