

**Minutes of the AHEPaM Progress Meeting,  
April 4, 2022 14:00 – 16:30**

The meeting was held via Teams

**Attendees:**

**ESA:**

Technical Officer: Alexander Stefanescu

Technical Contact for AHEPaM: Sabrina Pottinger, Nathalie Boudin

Technical Expert: Petteri Nieminen

**CAU:**

Team Lead: Robert Wimmer-Schweingruber

Instrument scientists: Bernd Heber

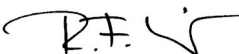
Development: Carsten Wallmann, Jonas Zumkeller

Electronics design: Björn Schuster

Simulations: Stefan Jensen

Calibration & simulations: Johannes Marquardt, Patrick Kühl

**Signatures:**

<b>Name (function)</b>	<b>Signature</b>
Nathalie Boudin (ESA, technical officer)	
Alexander Stefanescu (ESA, Technical officer)	
Robert F. Wimmer-Schweingruber (CAU, implementation)	

**Additional Material:**

**Agenda**

- 1) Presentation of design studies performed
- 2) Review of measurement requirements
- 3) Presentation of the current status
- 4) Closeout, MoMs

**Minutes:**

The meeting began at 14:10 after some technical issues with Teams. They were solved by using a Mac.

**1) Presentation of design studies performed**

CAU presents key results of the studies performed to date.

**2) Review of measurement requirements**

CAU show that the electron measurement is the driver for the instrument and that it will not be able to be satisfied with a realistic AHEPaM. This is explained in more detail in the document sent before the meeting (cau-ath-req-0003) and attached to these minutes.

<b>AI-01</b>	ESA to check whether the electron results are good enough for Athena	ESA	2022-05-31
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CAU mention another potentially critical point which is the mechanical mounting of the very heavy BGO crystals. ESA has already provided a contact at MPE Garching (Andreas von Kienlin) who was involved in the GBM on Fermi. GBM used very massive BGO scintillators.

<b>AI-02</b>	Check BGO mounting of GBM on Fermi with MPE Garching	CAU	2022-05-31
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**3) Presentation of the current status**

The Science Future Missions Department has a Common Parts Selection Agency under contract, which can provide information and help on parts as well as about qualification status, etc. for ongoing studies of future science missions.

AS suggests that CAU put together a preliminary list of LLI EEE part. The CPSA may be able to help in identifying problematic parts, and suggest alternative parts or advise on suppliers.

<b>AI-03</b>	CAU to provide ESA with a very preliminary LLI list to provide to ALTER (CPSA).	CAU	2022-05-31
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**4) Closeout, MoMs**

ESA will keep track of the requirements and CAU will create their own document which flows down therefrom.

<b>AI-04</b>	Send a formal update of the CAU requirements document (cau-ath-req-003).	CAU	2022-06-17
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ESA needs PRR documentation one week in advance (tbc).

The meeting ended at 16:15.

**Action items:**

<b>AI #</b>	<b>Text</b>	<b>Actionee</b>	<b>Due</b>
<b>AI-01</b>	ESA to check whether the electron results are good enough for Athena	ESA	2022-05-31
<b>AI-02</b>	Check BGO mounting of GBM on Fermi	CAU	2022-05-31
<b>AI-03</b>	CAU to provide ESA with a very preliminary LLI list to provide to ALTER (CPSA).	CAU	2022-05-31
<b>AI-04</b>	Send a formal update of the CAU requirements document (cau-ath-req-003).	CAU	2022-06-17