**ILIMA Board Meeting 1600 CET, 2/8/2021**

**Draft Minutes from Greg Lane**

**Attendees:**

Taka Yamaguchi, Greg Lane, Helmut Weick, Roman Gernhäuser, Wolfram Korten, Yuri Litvinov, Christophor Kozhuharov, Iris Dillmann, Markus Steck, Phil Walker, Natalia Kuzminchuk-Feuerstein, Zygmunt Patyk

**Apologies:**

M. Wang, K. Blaum

**1. Previous Minutes:**

Approved.

**2. Membership:**

Discussion concerning agreement between ILIMA membership list and TUD-FAIR database. Conclusion they agree because people who did not register themselves were registered according to ILIMA list. No action needed.

**3. Current status of the planned storage rings:**

No real discussion on current status. Instead there was a request for a report on Expt E143:

Yuri: 78Kr primary beam, 1.85 g/cm2 beryllium target. New 400 MHz-Schottky detector and isochronous mode in ESR. Saw 72Ge first excited 0+ state with a 20-30ms halflife. Multiple overlapping harmonics, so peak identification was complicated. Small bandwidth makes isomer studies easy (a few 100 keV resolution at A~70), but mass (broadband) measurements are not so easy. The latter is in principle fine, but needs more thought for faster interpretation.

Wolfram: Observed two photon decay of the excited 0+ state. Expected halflife was a few 100ms, so there is some nuclear structure to be understood. Saw long-lived isomer in 72Br at only 100 keV in single-ion measurement.

**4. Collaboration Agreement:**

Natalia presented changes that had been made to the Collaboration Agreement.

Article 4:

Iris/Helmut: Costs/budget are mentioned, but ILIMA doesn't really have one. FAIR has technical control of money, but ILIMA needs to define on what to spend it. FAIR budget is not open, so section 4.4 saying that our budget is part of the FAIR budget doesn't help people know the budget. Decision was taken that the ILIMA Project Manager has to report budget information to the Collaboration Board (CB).

Article 6.3:

Helmut/Wolfram: Not really a budget for operations, rather there is a budget for construction costs leading towards CR etc. But we should have a budget for operation costs, detector renewal etc, noting that current operation of FAIR-Phase 0 is separate from CR.

Wolfram: Does this agreement apply to experiments now or in the future?

Yuri: Difficult to say.

Wolfram: This is a further argument for making a budget for near term experiment operations.

Article 9:

Iris: If we are to change all of the annexes etc, then we need some form of version control. Will it be on EDMS since that would provide this?

Christophor: Changes require votes of the CB, so they will be in the minutes.

Iris: Minutes are not generally accessible to all the membership.

Annexe 2:

Phil: Noted that past proxies have been only to collaboration board members. There was general agreement that this should remain the case.

General Discussion: Written (secret) votes should be required for Spokesperson/Deputy Spokesperson, while these roles can also be filled by anyone in the collaboration, not just members of the CB.

Helmut: The past rule has been that Spokesperson and Deputy could vote on general issues, but not vote for themselves in elections.

Yuri: Agreed, noting candidates "stepped out" of the meeting when they stood for election.

Annexe 2.2: Management Board

Phil/Wolfram/Helmut/Greg: Project Manager should organise budget and report to CB for approval. General agreement that this was sensible.

Roman: Has an issue with there being two management bodies, collaboration board and technical board.

Wolfram: Detector subsystems should be represented on management board.

Helmut: integration of techn. board into collab. board would make board too large. Technical Board does not meet regularly only when needed.

Annexe 2.4: Technical Board

All: Discussion about distinguishing between Project Manager / Technical Coordinator. Concluded that a Project Manager roles was sufficient. Discussion about whether they should be at GSI.

Christophor: Keep statement about presence at GSI.

Iris: Be more clear about what "presence" entails or else pool of candidates may be too small.

Wolfram: To satisfy institutional/funding agency lawyers there are certain elements that we might want present in the CA. These are supposed to be in the NUSTAR version and could be pulled into the ILIMA version. However, the NUSTAR version is not yet finished.

Wolfram: Why separate Management and Technical Boards?

Yuri: NUSTAR and FAIR demanded some of this in the past.

Natalia: Do we need Technical Coordinator? Helmut: No.

Wolfram: FAIR demands NUSTAR have a Tech Coord, but there is no need for one at lower levels of organisation.

Annexe 2.5: Support for ILIMA

Natalia: Should working group leaders report to Tech Board or be part of Tech Board?

Consensus: They should be part of the Tech Board.

Helmut: A Project Manager from GSI is helpful, because he can also be work package leader in FAIR structure and be authorised to spend the FAIR budget.

Iris: Joint appointment at GSI is sufficient? Helmut: Yes

Wolfram: Not even a joint appointment is required, a simpler affiliation is possible (”400 Euro job with GSI”))

Helmut: Remove "responsible for the coordination" -> "coordinate". General agreement on this.

Wolfram: Remove "from FAIR project". General agreement on this.

Annexe 6: Policy Issues

Greg: Queried point 4 and the wording that "anyone" can propose an experiment.

Wolfram: Don't want a pre-PAC, but also want some control by ILIMA

Yuri: Collaboration needs to know about experiments being proposed.

Conclusion: Were changes made to address this?

Roman: "... and/or use ILIMA equipment" should be changed to "and" or else statement is too general. Everyone agreed to this.

Annexe 6.2: Publication Policy

6.2.3 Someone suggested to clarify the types of disagreement

Roman: These policies mean that any paper will take months to get through.

Greg/Helmut: The fact that any disagreement can be resolved through a vote gives a way that can explicitly end the process.

Natalia: The two week deadline for CB review also addresses this issue.

Wolfram: Do we need authorship rules?

Iris: Some examples where rules might help: Are ESR operations team always included as authors? If a student attends, should their group leader who provided funding also be an author?

Yuri: There will be a difference between FAIR-Phase 0 and later CR experiments, since the latter will be explicitly ILIMA collaboration experiments, whereas current experiments have mixed groups, e.g. E143. Asked Wolfram what he would do for E143.

Wolfram: Include all experiment attendees, talk to Yuri about appropriate people from ESR etc.

Greg: In principle, "mutual agreement" amongst the authors can solve the problem, as authors from each group will be on the list and need to mutually agree who to add. Wolfram agreed.

Concluding Discussion:

Helmut: How to proceed?

Natalia: I will make corrections, distribute, then CB can make a decision/vote.

Helmut: Vote now? Iris: Need some time to read it. Helmut: Then we follow Natalia's plan.

**5. Day 1 physics -> phase-0 proposals -> next G-PAC proposals**

G-PAC/FAIR wants an overview of strategic directions. They are seeking a 7 page LoI about ILIMA plans over next 2 years.

Phil: Can ESR get beam from SuperFRS?

Yuri: No, this is a "forbidden beam line", which would link the HESR back to the ESR, but is beyond the MSV.

Markus: ESR cannot even accept the beam from SuperFRS.

Yuri: Not this decade. He then further clarified the LoI request. Cannot run all possible experiments that we have on our list. G-PAC would like general guidance/outline of physics goals and plans, given that massive changes of infrastructure/equipment to handle all possible experimental goals is not feasible.

Wolfram: Still supported with good scientific reasons.

Yuri: Outlined some possible general goals for the next two years. Focus on Schottky and isochronous mode in ESR. New particle/ToF detectors? If so, only in ESR.

Iris: Seek specific equipment commissioning beamtime?

Yuri: Yes, if part of general overall plan.

Yuri: Questions to answer. Single ToF? Double ToF would be new, but since new Schottky sees every ion it is already a single ToF device.

Phil: LoI call mentions a video meeting with the GSI Scientific Director to clarify purpose of LoI. There is a Doodle poll open till Aug 6th. Date determined? Who will go?

Wolfram: 10/11 August are preferred at present. Wolfram (as NUSTAR spokesperson)/Yuri will be attending if possible.

Yuri: More discussion regarding LoI considerations. Two year strategic plan. Suggest no major changes to ESR setup. No pocket changes? No ToF detector installation? Test of transverse Schottky at Darmstadt in October. If it works, perhaps install it in ESR and add to LoI. Otherwise, no major changes and nothing that clashes or restricts other experiments from operating. Comment to Iris: Anything you might want to do, put it in the LoI.

Wolfram: Reminder that need to justify everything in terms of scientific need.

Yuri: How do we start? Wolfram: About to suggest you (Yuri) do it.

Yuri (resignedly): OK, I will sketch it out. Asks Iris/Natalia to think what they will add.

**6. Financial planning / common funds**

Helmut: Prior financial report (see last minutes) still valid. Can cover more with additional common funds for things like vacuum systems, cabling to couple new detectors, DAQ etc.

Wolfram: Are these infrastructure or detector specific? ILIMA is the only one not profiting from common construction costs for FAIR since is using other buildings. This might be an argument for seeking special ILIMA funds if it can be labelled as infrastructure.

Helmut: Will come up with a list. (Later comment for clarification: Helmut will circulate the list in the CB)

**7. TDR Status -> Tender**

Helmut: All TDRs are finished and approved. Before we get money the technical specifications need to be completed. Schottky and ToF are complete. Pockets need to be done as prerequisite for signing the in-kind contract. Almost finished, Helmut needs to do some finetuning there, apologizes for delay.

**8. Schottky**

**9. ToF**

**10. Other detectors**

No focussed discussion. Mostly covered along the way.

**11. NUSTAR Speaker**

Taka: Email discussion lead to decision to nominate Shahab to talk about new Schottky detector. Meeting is in October and will be hybrid (in person/zoom). All agreed on Shahab doing this.

Wolfram/Yuri: Also need a speaker on ILIMA strategy, essentially to present the LoI.

Taka: Suggests Yuri do it.

Iris: Yes, after Yuri has written LoI, he will be well placed to do this.

Yuri: Anyone else? Else: Silence.

Wolfram: NUSTAR suggest that the Spokesperson or Deputy should present this talk.

Yuri: Accepts defeat.

**12. AoB**

Wolfram: While technical/strategy details are main parts of the LoI, we also need to prepare more detailed science cases ready for subsequent G-PAC. Depending on the date of the G-PAC meeting these should be discussed at the NUSTAR Annual Meeting.

Iris: Resubmit the two that missed out last time? They plan to resubmit theirs. Asked about Phil's.

Phil: Plan is to reorient Hf isomer focus into more of a general mass measurement focus, since with new setup, the isomers come for free anyway.

Wolfram: Plan to extend E143 to more general excited 0+ studies, but requires more thought.

Yuri: Last G-PAC had a lot of incomplete measurements from 2020 that were approved. Since they are now all completed, he expects approvals to be easier.

**13. Next ILIMA CB Meeting**

Various: Date of next meeting should be prior to LoI deadline (October), after technical specifications have been completed (Helmut) and after Collaboration Agreement changes have been distributed (Natalia). Consensus is that end of September is sensible. Doodle poll to be set up.

**Meeting closed at approximately 19:00 CET.**