Minutes ILIMA CB Meeting (GSI Darmstadt, Feb 28th, 2012)

Participants: K. Blaum (MPIK Heidelberg), T. Faestermann (TU München), H. Geissel (GSI), C. Kozhuharov (GSI), Y.A. Litvinov (GSI), M. Steck (GSI), P. Walker (Uni Surrey), H. Weick (GSI) , T. Yamaguchi (Saitama)

On invitation: I. Dillmann (GSI/ Giessen), C. Scheidenberger (GSI/ Giessen), Xinwen Ma (Lanzhou)

Apologies: W. Plass, D. Seliverstov, Z. Patyk, S. Goriely

Minutes: I. Dillmann

Agenda:

1. Membership and previous minutes
2. Review of opportunities with resonant Schottky pick-ups
3. Review of opportunities with ToF detectors
4. Review of opportunities with "Other detectors"
5. Properties of the CR and what the key issues are for ILIMA
6. ILIMA management structure and working groups
7. Schedule for TDR writing
8. Any aspects of finances that have not already been discussed
9. Any other business
10. Date of next meeting

1. Membership and previous minutes

a) Xinwen Ma (Lanzhou) is participating. It is proposed that he becomes a member of the CB. After a closed discussion of the CB members this is concordantly agreed. It is further suggested that an official formal letter should be sent by Lanzhou to the ILIMA collaboration.

b) NUSTAR has started an open registration for the new homepage. The list of people which have registered for ILIMA can be found in the appendix. This list is not identical with the official ILIMA memberships.

Comment: ID spoke with Alexander Herlert. The open registration is still possible at http://www.fair-center.eu/fair-users/experiments/nustar/nustar-collaboration.html. The NUSTAR administration is working on a database (see "NUSTAR Database") which distinguishes between an "open" list where everyone can register to receive e.g. newsletters, workshop announcements etc., and the real "active collaboration members" list, which is administrated by the collaboration spokespersons. If we want to have the "official member list" online now, we should talk to Alexander or Namita Goel. One possibility is to have two lists online (see e.g. HISPEC/DESPEC), one for "official collaboration members" (to be checked by the spokespersons/deputies with the database manually), and the present "open list". The "official collaboration members" will be later also counted for the upcoming collaboration fee. This will be presented to the NUSTAR Council soon, more information in the next Annual NUSTAR meeting in spring 2013.

The minutes from the last CB meeting (Nov. 30th 2011) are accepted.

2. Review of opportunities with resonant Schottky pick-ups

Yuri Litvinov's talk from the ILIMA Open Meeting was discussed. Some of the questions and remarks being addressed were:

- Advantage of new design: faster response time ⇨ measurements further out from line of stability
- Can they handle small charges, small currents, and light ions? Measurements down to C, Ne possible. The resonator is just a prototype, the sensitivity can be increased by 1-2 orders of magnitude.
- How many Schottky's are planned? How many broadband, how many resonant? Are they tunable? The design is for 10 RF cavities, 5 will be installed, the remaining space keeps reserved for an upgrade.
- Space requirements: 1 cavity corresponds to ≈1m for 3 Schottky's.
- One Schottky will be installed in one arc
- MS reports that one position for a PhD student is advertised.
- The basic design of the CR will be ready in 2013.
- One of the topics where no conclusion was achieved is the total number of Schottky's which will be installed. YL requires a minimum of 2, the maximum number depends. MS emphasizes that one needs specifications for the different designs which should go into the TDR.

3. Review of opportunities with ToF detectors

Two locations are planned for the new ToF detectors which should be far enough away from magnets to be unaffected by stray fields. The size to the ToF chamber is ≈70 cm. The detector has to be removable from the beamline which requires horizontal space. At the proposed locations one has to take care not to block the inside of the CR and on the outside the RESR transport path. There will be no crane inside the CR, only on the outside, which should be considered in the setup.

4. Review of opportunities with "Other detectors" (heavy ion detectors/ particle detectors)

Iris Dillmann's talk from the ILIMA Open Meeting was discussed. Two locations for the particle detectors were identified and are reserved in the CR design. It was suggested that also the possibility of measurements in the HESR should be investigated due to the availability of an electron cooler, e.g. for measurements of isotopes with long half-lives.

5. Properties of the CR and what the key issues are for ILIMA

There was no additional discussion on this issue.

6. ILIMA management structure and working groups

It was suggested to activate the working groups for each of the three detector types.

7. Schedule for TDR writing

It was suggested to make a Technical Board meeting (HW). Is there a need to write the TDRs now? The timescales should be adapted to the changed FAIR timescale. The approval time takes ~6 months.

(Link to templates for Technical Design Report (TDR) and Specification and Cost Review (SCR): http://www.fair-center.de/de/fair-nutzer/experimente/nustar/nustar-documents.html)

- Schottky: Unclear, depends on PhD of Shahab Sanjari (U Frankfurt/ GSI)
- Heavy Ion Detectors: not possible now, needs R&D connected to German BMBF funding (2012-2015). Estimated 2015.
- ToF: Needs further R&D for 3 years, then TDR (>2015)

8. Any aspects of finances

- Notification of projects funded by German BMBF: ~April (funding period June 2012 –2015). Please inform PW shortly about the accepted funding.
- Accepted R&D funding by Helmholtz Association: money for Schottky's *("Accelerator Research & Development", http://www.helmholtz-ard.de/)*

9. AOB

It was remarked that the information flow within the ILIMA collaboration, especially among the CB members working at GSI needs to be improved.

Alexander Herlert requested an updated money matrix from ILIMA (also in view of the next BMBF proposals). The CB members should make a specific meeting where these topics should be discussed in detail, e.g. the new numbers from the POF, extrapolation of costs (factor 1.3), new/ changed commitments etc. Realistic numbers will be required for the TDRs.

10. Next CB meeting

End of November together with the annual FRS User meeting.

- **APPENDIX**

List of people who have themselves enlisted via the NUSTAR webpage for ILIMA (June 29th, 2012). This list is not identical with the officially accepted list of ILIMA members.

(Source: http://www.fair-center.eu/fair-users/experiments/nustar/experiments/ilima.html)

BARC Mumbai, India (1) Pandit, Sanat

BINP Novosibirsk, Russia (2) Parkhomchuk, Vasily

CEA Saclay, France (3) Déchery, Fabien

CSNSM Orsay, France (4) Audi, Georges

ESS Bilbao, Spain (5) Slobodan, Djekic

Facility for Rare Isotope Beams/MSU, USA (6) Hausmann, Marc

GSI Darmstadt, Germany (7) Kluge, H.-Jürgen (8) Geissel, Hans (9) Mei, Bo (10) Egelhof, Peter (11) Dickel, Timo (12) Herfurth, Frank (13) Evdokimov, Alexey (14) Franzke, Bernhard (15) Scheidenberger, Christoph (16) Klepper, Otto (17) Kozhuharov, Christophor (18) Bosch, Fritz (19) Simon, Haik (20) Marta, Michele (21) Knöbel, Ronja (22) Stöhlker, Thomas (23) Münzenberg, Gottfried (24) Dolinskyy, Oleksiy (25) Weick, Helmut (26) Litvinov, Yuri (27) Nociforo, Chiara

IMP Lanzhou, China (28) Tu, XiaoLin (29) Mao, Ruishi (30) Yan, Xinliang (31) Ma, Xinwen (32) Wang, Meng

JINR Dubna, Russia (33) Andrei, Bezbakh

Louisiana State University & ORNL, USA (34) Matos, Milan

MPIK Heidelberg, Germany (35) Winckler, Nicolas (36) Shubina, Daria (37) Blaum, Klaus

National Centre for Nuclear Research, Poland (38) Patyk, Zygmunt

NSCL/MSU, USA (39) Schatz, Hendrik

NuPECC, Europe (40) Körner, Gabriele-Elisabeth

RIKEN, Japan (41) Tomohiro, Uesaka

Stefan Meyer Institute, Vienna, Austria (42) Marton, Johann Marton

Technische Universität München, Germany (43) Faestermann, Thomas

University of Edinburgh, United Kingdom (44) Woods, Philip

University of Frankfurt, Germany (45) Sanjari, Shahab

University of Giessen, Germany (46) Sun, Baohua (47) Dillmann, Iris (48) Plaß, Wolfgang (49) Pfeiffer, Bernd (50) Diwisch, Marcel

University of Istanbul, Turkey (51) Cakirli, R.Burcu

University of Jyvaskyla, Finland (52) Jokinen, Ari

University of Manchester, United Kingdom (53) Cullen, David

University of Saitama, Japan (54) Yamaguchi, Takayuki (55) Suzuki, Takeshi

University of Surrey, United Kingdom (56) Townsley, Christopher (57) Podolyak, Zsolt (58) Walker, Philip

University of the West of Scotland, United Kingdom (59) Andreyev, Andrei

University of Tsukuba, Japan (60) Ozawa, Akira

University of Warsaw, Poland (61) Pfutzner, Marek