

Agenda and Minutes of the 1st Meeting of the JRA in FP7-II, 5th December 2012

Agenda:

1. Review of the JRA in NMI3/FP7-I, including a discussion about final reporting
2. Review of the JRA and associated deliverables, in NMI3/FP7-II
3. Review of deliverables associated with muons within the Outreach JRA (NMI3/FP7-II)
4. Forward look to a new muon JRA within HORIZON 2020 (FP8)
5. AOB

Attending:

1. Steve Cottrell
2. Elvezio Morenzoni
3. Jamie Peck
4. Pietro Bonfa

Discussion:

1. Review of the JRA in NMI3/FP7-I

Steve Cottrell presented an overview of the JRA in FP7-I. In particular the content and schedule of the final report was discussed; Steve will complete a draft report early January and circulate for review and comments by the end of the month. It is hoped that this report can be finalised by early February. All deliverables are complete with only the reporting of the joint PSI-ISIS NeXus Instrument Definition (with appropriate file converters) needing to be finalised. Steve noted that a list of questions had been sent to JRA coordinators to help focus discussions on the outcome of the JRA. These were reviewed and it was agreed they would be addressed during final reporting.

2. Review of the JRA and associated deliverables in NMI3/FP7-II:

Steve Cottrell noted that the task associated with software development for data analysis was behind schedule, with a document outlining the specification of software routines having been due Q4, 2012. It was agreed that PSI would send ISIS ideas for routines early in 2013 and these would be combined with ISIS requirements to complete a draft document.

Steve Cottrell gave an overview of the task looking at detector development for pulsed muon sources. A visit by ISIS staff to PSI has already been completed (due Q1, 2013) and practical work is now underway following the appointment of a student within the ISIS detector group. Steve thanked PSI for the loan of the pre-amplifiers, essential to this task area. Initial work is likely to focus on making an on-beam performance comparison between and APD and PMT based detectors, looking particularly at the deadtime for each system. It is anticipated that this work will conclude with a report Q3, 2013 and that the outcome will guide the future direction of the project, particularly in the construction of a high transverse field detector bank for HiFi.

3. Review of the deliverables associated with muons within the Outreach JRA:

Steve Cottrell noted that an 'Outreach' area had now been added to the website (see '<http://nmi3.eu/about-nmi3/joint-research-activities/muons/outreach.html>') to satisfy the first deliverable of this task. Comments are very welcome.

A draft of an LCR publicity leaflet produced by ISIS was presented. It is designed for a non-expert in the muon area, offering a brief insight into what is possible with LCR while providing an overview of the muon technique and the facilities available for μ SR experiments. The leaflet has been formatted using a Graphic Design company (Ampersand Design Ltd, Wantage) to ensure a professional appearance. Comments are invited by early January, with the aim of producing the finished leaflet before the end of January. A similar leaflet is required for High Transverse Field muon spectroscopy and PSI agreed to provide ISIS with draft text early February to enable Ampersand Ltd to complete

both leaflets Q1, 2013 (deliverable due Q4, 2012). It was noted that the leaflet has been designed with general information appearing on the front and rear pages, with only the inner two pages being focussed on the specific subject of the leaflet. This should ensure a consistent appearance while minimising the effort required to produce future leaflets.

The functional materials and soft matter workshops were discussed. Elvezio Morenzoni proposed holding the first of these in conjunction with a three day PSI User Meeting (also involving neutron and X-ray communities) planned for September 2013. This was agreed and it was noted that the soft matter workshop is likely to be held in conjunction with a similar User Meeting at RAL later in the project.

4. Forward look to a new JRA within HORIZON 2020 (FP8)

Steve Cottrell noted that topics for JRAs within HORIZON 2020 (FP8) were starting to be considered and suggested it might be useful to consider how a muon JRA might be developed in the new contract. Simulation was highlighted as a major area for development, with the application of DFT techniques being of particular importance. Software development, workshops and educational material might be included in the deliverables, with University groups and international collaborators involved in the project. Elvezio Morenzoni mentioned that recent simulations had shown a high intensity of muons being produced from neutron spallation targets, and suggested an 'Advanced Muon Beams' task area to explore how this concept might be used for future muon sources. A task area looking at 'Fast Timing' might also be included to study the performance of new APDs just coming onto the market.

5. AOB

Steve Cottrell noted that the board had proposed developing an equivalent website to neutronsources.org, with muonsources.org focussed on providing news, information and educational material about muon research and sources worldwide. The meeting was keen to see the site setup and it was agreed that Steve should discuss practical details on setting up the site. It was also agreed that Steve contact the current ISMS President (Steve Blundell) to explore how the new website might be used to augment the existing ISMS web presence.