

 – Protocol		Nr.: March 3rd, 2020 , 14:00 – 16:00																																												
Machine Meeting (MM)		Chair: M. Bai																																												
Distribution	Machine coordinators and their deputies, departments leaders accelerator, participants, Management board																																													
Participants																																														
Thomas Friedrich C. Trautmann D. Ina, Schubert Bruno Merk	<p><u>Attendees</u></p> <table border="1" data-bbox="395 521 890 1189"> <tr> <td><input checked="" type="checkbox"/> Stephan Reimann</td> <td><input type="checkbox"/> Markus Vossberg</td> </tr> <tr> <td><input type="checkbox"/> Ralph Hollinger</td> <td><input checked="" type="checkbox"/> Klaus Tinschert</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Fabio Maimone</td> </tr> <tr> <td><input checked="" type="checkbox"/> Lars Groening</td> <td><input type="checkbox"/> Sascha Mickat</td> </tr> <tr> <td></td> <td><input type="checkbox"/> M. Kaiser</td> </tr> <tr> <td><input checked="" type="checkbox"/> Gerald Schreiber</td> <td><input type="checkbox"/> Bernhard Schlitt</td> </tr> <tr> <td></td> <td><input type="checkbox"/> A. Schnase</td> </tr> <tr> <td><input type="checkbox"/> Markus Steck</td> <td><input type="checkbox"/> Danyal Winters</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Sergey Litvinov</td> </tr> <tr> <td><input checked="" type="checkbox"/> Frank Herfurth</td> <td><input type="checkbox"/> Zoran Andelkovic</td> </tr> <tr> <td><input type="checkbox"/> Christina Dimopoulou</td> <td><input type="checkbox"/> Jon Roßbach</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Regina Heß</td> </tr> <tr> <td><input checked="" type="checkbox"/> Winfried Barth</td> <td><input type="checkbox"/> S. Yarmychev</td> </tr> <tr> <td></td> <td><input checked="" type="checkbox"/> Hartmut Vormann</td> </tr> <tr> <td><input type="checkbox"/> Gertrud Walter</td> <td><input type="checkbox"/> Kalliopi Dermati</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Markus Romig</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Stephan Teich</td> </tr> <tr> <td><input checked="" type="checkbox"/> Udo Weinrich</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> D. Severin</td> <td></td> </tr> <tr> <td><input type="checkbox"/> M. Sapinski</td> <td><input checked="" type="checkbox"/> C. Hessler</td> </tr> <tr> <td><input type="checkbox"/> Peter Spiller</td> <td><input checked="" type="checkbox"/> Jens Stadlmann</td> </tr> <tr> <td><input type="checkbox"/> Markus Schwickert</td> <td><input checked="" type="checkbox"/> Emma Haettner</td> </tr> </table> <p style="text-align: right;">*Types: A = Action, D = Decision, I = Information</p>	<input checked="" type="checkbox"/> Stephan Reimann	<input type="checkbox"/> Markus Vossberg	<input type="checkbox"/> Ralph Hollinger	<input checked="" type="checkbox"/> Klaus Tinschert		<input type="checkbox"/> Fabio Maimone	<input checked="" type="checkbox"/> Lars Groening	<input type="checkbox"/> Sascha Mickat		<input type="checkbox"/> M. Kaiser	<input checked="" type="checkbox"/> Gerald Schreiber	<input type="checkbox"/> Bernhard Schlitt		<input type="checkbox"/> A. Schnase	<input type="checkbox"/> Markus Steck	<input type="checkbox"/> Danyal Winters		<input type="checkbox"/> Sergey Litvinov	<input checked="" type="checkbox"/> Frank Herfurth	<input type="checkbox"/> Zoran Andelkovic	<input type="checkbox"/> Christina Dimopoulou	<input type="checkbox"/> Jon Roßbach		<input type="checkbox"/> Regina Heß	<input checked="" type="checkbox"/> Winfried Barth	<input type="checkbox"/> S. Yarmychev		<input checked="" type="checkbox"/> Hartmut Vormann	<input type="checkbox"/> Gertrud Walter	<input type="checkbox"/> Kalliopi Dermati		<input type="checkbox"/> Markus Romig		<input type="checkbox"/> Stephan Teich	<input checked="" type="checkbox"/> Udo Weinrich		<input checked="" type="checkbox"/> D. Severin		<input type="checkbox"/> M. Sapinski	<input checked="" type="checkbox"/> C. Hessler	<input type="checkbox"/> Peter Spiller	<input checked="" type="checkbox"/> Jens Stadlmann	<input type="checkbox"/> Markus Schwickert	<input checked="" type="checkbox"/> Emma Haettner	
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Important: I = Information D = Decision AI = Action Item			
1	Agenda		
	1. Approval of meeting minutes 2. Follow-up of action items <ul style="list-style-type: none"> • Beam parameter campaign: Lars • experiment presentation 3. Status update		
2	Update		
	<p>Experiment presentation Thomas Friedrich, C. Trautmann, D. Ina, Schubert and Bruno Merk shared with us the overview of their upcoming experiments. The slides can be found at \\winscratch\Scratch\beamtime\2020 for Machine\Materialforschung-UNILAC+SIS</p> <p>Feedback from machine experts:</p> <ul style="list-style-type: none"> • long pulses (3-5 ms) from UNILAC A3 is not desired at the moment. LINAC RF is working on the issue. Nevertheless, due to short of manpower, it takes a bit of time • higher than 1Hz pulse to pulse adjustment using HSI LEBTQQ is not possible due to the LEBTQQ <p>Shutdown activities</p> <p> 07_Shutdo wn_activi...</p> <p> 07_Shutdo wn_activi...</p>		

Beam parameter campaign: <https://indico.gsi.de/event/10207/contribution/0/material/slides/1.pptx>
 Lars showed the current status of the study planning. In short, a brief plan with required experts, number of shifts for UNILAC and FRS was developed by the UNILAC and FRS teams, respectively. Please find the details of UNILAC on the 2nd slide of <https://indico.gsi.de/event/10207/contribution/10/material/slides/0.pptx>. FRS plan at <https://indico.gsi.de/event/10207/contribution/4/material/slides/0.pptx>.

At the moment, folks prefer to carry this campaign out in 3 daily rotating shift. Once this plan is more settled, one can then see how to accommodate other beam study requests accordingly.

Action:

- Jens will deliver the SIS18 plan shortly
- ESR and CYRING will update the GSI achieved uranium beam parameter in the next couple of weeks as their scheduled experiments develop

Beamtime status: <https://indico.gsi.de/event/10207/contribution/2>

No major issues. Beam on target reached just shy of 70% with experiments at UNILAC, SIS18, and ESR
 Technical issues:

- HLI-RFQ has to be switched off/on several times per shift. This seems to be due to the vacuum surge, explained by G. Schreiber
- SIS18 kicker room water leak came back. At the moment, GAT colleagues have to use drying towel twice a day to keep the cabinet in safe operation mode.
 Jens commented that SIS18 team also follows up daily. They report to Jens, who contacts GAT assessment. He did contact CAM in the past many times.

Action: Mei will contact CAM

Ion Source status: <https://indico.gsi.de/event/10207/contribution/8>

Ongoing. No major issues.

Highlight: significant reduction of parasitic heating of the EZR microwave oven was achieved by implementing a 70% shielding with a tungsten mesh at its exit!

UNILAC status: <https://indico.gsi.de/event/10207/contribution/10>

No major issues at the moment. The dancing bunch in TK was traced to be the problem of the improper Hall-probe grounding that caused the jitter of the magnet's field regulation loop. In principle, all TK power supplies tolerance are 100ppm.

Spare parts in good working progress

SIS18 status: <https://indico.gsi.de/event/10207/contribution/11>

See beam time status report

HEST status: <https://indico.gsi.de/event/10207/contribution/3>

DIP16 for new HDD beam line request was declined by the controlling due to no budget. Mei has escalated to the management board. To be followed

More beamlines are now available to the online optics tool Benno!

FRS status: <https://indico.gsi.de/event/10207/contribution/6>

GHFSMU1: A technical defect. It is not yet clear what is the root cause. The power supply was burned 3 times during the last engineering run with uranium beam.

IMPACT: the FRS experiment is jeopardized. including the later-on storage ring experiments which need beam from FRS

Action: full report including mitigation presentation at next week MM

ESR status: <https://indico.gsi.de/event/10207/contribution/12/material/slides/0.pdf>

typo of the 3rd bullet: should be "3 days of" instead of "3 days off"

Team has been focus on fulfilling the scheduled ESR experiment, not yet sufficient time to complete its commissioning. Will resume this during the upcoming commissioning in April. The goal is to take time to optimize various beam performance. The likelihood for delivering beam to CRYRING is rather low

CRYRING status: <https://indico.gsi.de/event/10207/contribution/5>

In preparation for its upcoming user operation

Highlights:

- Latest LHe refilling procedure has been able to hold the LHe for over 5 days!
- EZR source from Giessen is in operation! Interface with FAIR controls in working progress

PSU status:

<https://indico.gsi.de/event/10207/contribution/12/material/slides/0.pdf>
<https://indico.gsi.de/event/10207/contribution/12/material/slides/0.pdf>

No major issues

cw-LINAC status: <https://indico.gsi.de/event/10207/contribution/13>

No major issues. Finally, CH2 @ IAP Frankfurt test is likely to get started after Easter, as promised!

AIP status: <https://indico.gsi.de/event/10207/contribution/14/material/slides/0.pdf>

3

Discussion

All

Experiment this week presentations:
 Limitations are: 1) long pulses with A3 2) repetition rate limitation when pulse to pulse different intensity tuning using LEBT-QQ are desired

Beam parameter campaign: <http://indico.gsi.de/event/10207/contribution/0/material/slides/1.pptx>



Measure
 FRS para...



Measure
FRS para...

4

Open Action items

1. FAIR Booster mode status: R. Baer, D. Ondreka: **March 31, at 3:30pm**
Ralph Bär
D. Ondreka
2. Provide a list of planned controls release and changes in 2020-2021 along with their potential impact and effect on the GSI existing facilities and systems such as beam instrumentation, power convertor etc
Ralph Bär
3. Postmortem report on the topic of current controls related issues, in particular the issue that blocked beam injection into SIS18 at the beginning of the Engineering Run template can be found at https://www.gsi.de/fileadmin/Beschleunigerbetrieb/PostMortemAnalysisReport_Template.docx mid-Feb
Jens
4. work with the relevant technical groups, experts to develop the list of the critical systems/components with information of the existing status as well as the spare parts or other mitigation measures
All
5. **Action:** clarify the quality control for critical steps: UW/LG
In progress
Lars Groening

Any other business

- **Next Machine Meeting: March 10, 2020, 14:00 - 15:30 Uhr**