Meeting:	**Machine Meeting**
Date:	28.09.2021 14:00-15:30 **Author:** S. Reimann
Participants:	U. Weinrich, S. Reimann, F. Maimone, H. Vormann, J. Stadlmann, M. Steck, C. Hessler, F. Herfurth, W. Barth, L. Groening, O. Geithner, M. Schwickert, D. Severin, U. Scheeler, S. Litvinov, E. Hättner, M. Traxler, J. Pietraszko, E. Schwab
Distribution:	Participants + J. Blaurock, P. Schütt, S. Menke, R. Hollinger, K. Tinschert, P. Spiller, B. Lorenz, R. Hess, J. Rossbach, M. Lestinsky, R. Bär, A. Krämer, M. Bevcic, D. Ondreka, H. Klingbeil, U. Blell, C. Mühle, B. Schlitt, H. Huether, C. Scheidenberger, T. Dickel, M. Miski-Oglu, M. Vossberg, L. Birli, G. Schreiber

Contents:

A: Action, D: Decision, I: Information		Who	Due Date
1. Comments on the Recent Minutes 2021-09-14			
D	Open issues: • none		
2. HADES Proton run 2022			
I	J. Pietraszko informed about the experiment setup, the requirements and the operational risks of the HADES experiment next year (see slides attached). Results of the discussion	J. Pietraszko	
I	General statement: The fine tuning of the setup for this specific experiment is challenging and will most probably take more than one day. Expert support will be provided by the accelerator team.	ACC-team	
I	1. UNILAC-SIS18 chain generally can provide the requested 4.5 GeV proton beam, 13s extraction time, 1E8 protons per spill	J. Stadlmann, W. Barth	
I	2. Target steering with Benno tool is possible and can also be made available to the HADES team	S. Reimann	
A	Benno model must be updated with the actual survey data (after alignment), this includes all relevant positions and apertures. C. Hessler will contact E. Schwab.	C. Hessler, E. Schwab	Nov.21’
I	3. Target steering with knobs is not yet implemented and can most probably not be realized until beam time.	C. Hessler	
A	C. Hessler and O. Geithner will contact B. Schlei to ask for an effort estimation. U. Weinrich supports the prioritization of this feature.	C. Hessler, O. Geithner	Nov.21’

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I	4. The requested diameter of the target beam spot (0.5cm 3sigma) can be achieved. The high beam energy is advantageous for the situation. Usage of ECR ion source is recommended.	ACC-team	
D	Since a higher intensity is needed in parallel for WASA, both proton sources (ECR, MUCIS) will be prepared for parallel operation in February.	W. Barth, F. Maimone	
I	4. The macro-spill feedback system is not available for user operation 2021. J. Stadlmann will check possibilities and a realistic timeline with D. Ondreka.	S. Reimann	
I	5. The accelerator team has only a few options for optimizing the micro spill structure. All possibilities will be exploited during the beam setup process. However, it is not possible to make a statement about the best possible Q-factors that can be achieved.	J. Stadlmann, S. Reimann	
3. HADES Pion proposal			
I	The Pion-Experiment-proposal (see last of slides attached) has been put on hold until improvements are made to the machines to allow better transmission and thus improve radiation safety.	J. Pietraszko	
I	The following measures have been taken since then • Replacement of the power supply unit of the SIS18 electrostatic extraction septum. This ensures that the target angle is achieved also close to the highest beam rigidity. The extraction losses could thus be drastically reduced. • In the transfer line, a new ion optics was designed and star-shaped quadrupole chambers with larger apertures were installed.	J. Stadlmann C. Hessler	
D	From the point of view of the concerned machine coordinators and the operation management, these measures lead to a significant improvement in transmission and thus to a higher target intensity with lower losses. Proposal submission can be recommended.	ACC-team	

Attachment(s)

Pietraszko_HADES_beam_accelerator_meeting_28_09_2021.pdf