BGC Collaboration Meeting at the Cockcroft Institute

Report of Contributions

https://indico.cern.ch/e/817655

Contribution ID: **1** Type: **not specified**

Welcome to Cockcroft

Thursday 13 June 2019 09:00 (20 minutes)

i. Project Summary
ii. Status of Collaboration
iii. Summary of future goals for the collaboration
iv. Recruitment situation and plans, financial situation, main milestones
v. Payments for V3 model of stages 1 and 2 including designers

Presenter: WELSCH, Carsten Peter (Cockcroft Institute / University of Liverpool)

Session Classification: Welcome to the Review

Contribution ID: **2** Type: **not specified**

Review of previous workshop and objectives

Thursday 13 June 2019 09:25 (20 minutes)

i. Review of actions from last meeting
ii. Objectives for the workshop
iii. Milestones for the project at CERN

Presenter: VENESS, Raymond (CERN)

Session Classification: Welcome to the Review

Contribution ID: **4** Type: **not specified**

2018/2019 Experimental results from Cockcroft (20min + 5min)

Thursday 13 June 2019 09:45 (25 minutes)

i. Neon, Argon and Nitrogen gas jet formation: Measured density
Measured dimensions ii. Integration times for different gases: Comparison of measured vs predicted
Estimation of integration time to work as an overlap instrument
Estimation of integration time to work as a profile monitort iii. Optimisations performed: <ul> Distances between skimmers and nozzles
Diameters of the nozzle
Pumping modifications iv. Pressure profile across chambers with electron gun on/off and gas jet on/off
v. Optimum distance for nozzle/1st skimmer, using theory.

Presenters: SALEHILASHKAJANI, Amir (Liverpool University); Dr ZHANG, Hao (University of Liverpool/Cockcroft Institute)

Session Classification: Results from 2018/19

Contribution ID: **5** Type: **not specified**

Update of experimental results from LHC fluorescence measurements (15min + 5min)

Thursday 13 June 2019 10:15 (20 minutes)

i. Experiment performed
ii. Data obtained
iii. Obstacles (synchrotron radiation, scattered particles)

Presenter: MAZZONI, Stefano (CERN)

Session Classification: Results from 2018/19

Contribution ID: **6** Type: **not specified**

Experimental results and developments from GSI in 2018 (15min + 5min)

Thursday 13 June 2019 10:40 (20 minutes)

i. Measurements with Argon
ii. Up-date table of gas yields comparison

Presenter: FORCK, Peter (GSI)

Session Classification: Results from 2018/19

Contribution ID: **7** Type: **not specified**

Nitrogen as a gas (15min + 5)

Thursday 13 June 2019 16:30 (20 minutes)

i. Possible interest in using a N2 gas jet
ii. Possible experiments in 2019

Presenter: VENESS, Raymond (CERN)

Session Classification: Project program for 2019/20

Contribution ID: **8** Type: **not specified**

Procurement and production of BGC parts by cockcroft Institute (15min + 5min)

Thursday 13 June 2019 17:30 (20 minutes)

Presenter: Dr ZHANG, Hao (University of Liverpool/Cockcroft Institute)

Session Classification: Project program for 2019/20

Contribution ID: **15** Type: **not specified**

Hollow Electron Lens update (20min + 5min)

Thursday 13 June 2019 11:20 (25 minutes)

i. Schedule for the HEL test stand
ii. HEL test stand parameters
iii. Update on HEL and parameters, including e-beam diameter
iv. Estimation possible on integration time

Presenter: ROSSI, Adriana (CERN)

Session Classification: BGC applications and collaborations

Contribution ID: **17** Type: **not specified**

LS2 BGC Installation & Integration (25min + 5min)

Thursday 13 June 2019 14:15 (30 minutes)

Stage 1 <ul> Minimisation work, design and integration
Technical issues of blackening –baseline for the V3. Stage 2 <ul> Nozzle chamber simplification
Integration and space availability
Next nozzles - CD Nozzle & alternatives BGC HEL design <ul> HEL test stand LHC HEl (inner / outer beam)

Presenter: GLUTTING, Johanna (Fachhochschule Kaiserslautern University of Applied Sciences (D)

Session Classification: Requirements for the BGC instrument

Contribution ID: **18** Type: **not specified**

Vacuum considerations (15min + 5min)

Thursday 13 June 2019 14:50 (20 minutes)

i. Status and verification of new mechanical design.
ii. Vacuum pumps and gauges. Requirements, proposals, control system, cabling,
iii. Tests performed

Presenter: SCHNEIDER, Gerhard (CERN)

Session Classification: Requirements for the BGC instrument

Contribution ID: **19** Type: **not specified**

Close-out

Friday 14 June 2019 09:30 (15 minutes)

Presenter: WELSCH, Carsten Peter (Cockcroft Institute / University of Liverpool)

Contribution ID: **21** Type: **not specified**

Wrap-up (20min + 10min)

Friday 14 June 2019 09:00 (30 minutes)

Actions from the review

Presenter: VENESS, Raymond (CERN)

Contribution ID: **23** Type: **not specified**

Summary of other jet experiments and non-invasive profile monitoring (15min + 5min)

Thursday 13 June 2019 11:50 (20 minutes)

Presenter: DODINGTON, Tom (CERN)

Session Classification: BGC applications and collaborations

Contribution ID: **26** Type: **not specified**

Dinner

Thursday 13 June 2019 19:30 (2 hours)

Contribution ID: **27** Type: **not specified**

BGV Instrument and integration of gas jet technology (15min + 5min)

Thursday 13 June 2019 12:15 (20 minutes)

i. Intro to the BGV working principle
ii. How gas jet technology could help –required profile and density of gas jet
iii. Next steps for development, verification.

Presenter: KIEFFER, Robert (University of London (GB))

Session Classification: BGC applications and collaborations

Contribution ID: **29** Type: **not specified**

Planning (15min + 5min)

Thursday 13 June 2019 15:15 (20 minutes)

i. Milestones
ii. To-do list (infrastructure requirements, cabling, gas piping)
iii. Engineering change requests with agreement on impedance, safety, aperture, vacuum

Presenter: SCHNEIDER, Gerhard (CERN)

Session Classification: Requirements for the BGC instrument

Contribution ID: **30** Type: **not specified**

2019/20 Experimental programme (20min + 10min)

Thursday 13 June 2019 16:55 (30 minutes)

Presenter: Dr ZHANG, Hao (University of Liverpool/Cockcroft Institute)

Session Classification: Project program for 2019/20