# PIONEER Collaboration Meeting

# **Report of Contributions**

Review of performance

Contribution ID: 1 Type: not specified

## **Review of performance**

Tuesday 7 January 2025 16:35 (25 minutes)

**Presenter:** BEESLEY, Omar

Session Classification: Calo

Tapered crystals

Contribution ID: 2 Type: not specified

## **Tapered crystals**

Tuesday 7 January 2025 17:00 (15 minutes)

Presenters: LIU, Jianglai (SJTU); HUI, Jiaqi (SJTU)

Session Classification: Calo

Contribution ID: 3 Type: not specified

### Mechanical design

Tuesday 7 January 2025 17:30 (15 minutes)

 $\begin{tabular}{ll} \textbf{Presenter:} & ROEHNELT, Ryan \\ \end{tabular}$ 

Session Classification: Calo

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

### Laser calibration measurement

Tuesday 7 January 2025 17:45 (10 minutes)

**Presenter:** SWANSON, Erik (University of Washington)

Session Classification: Calo

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

### LP: Overview & schedule

Wednesday 8 January 2025 13:45 (15 minutes)

**Presenter:** MALBRUNOT, Chloe (TRIUMF)

Session Classification: Calo

Contribution ID: 6 Type: not specified

### LP: Simulations & hardware

Wednesday 8 January 2025 14:00 (20 minutes)

**Presenter:** KLEMETS, Emma (TRIUMF)

Session Classification: Calo

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

## LP: Purity monitor & DAQ

**Presenter:** KLEMETS, Emma (TRIUMF)

Session Classification: Calo

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

# Full calo: cryostat conceptual design, windows, cryogenic system

Wednesday 8 January 2025 14:35 (20 minutes)

Presenter: MIHARA, Satoshi (KEK)

Session Classification: Calo

Contribution ID: 9 Type: not specified

### LP: MPPCs concept and tests

Wednesday 8 January 2025 14:20 (15 minutes)

Presenter: OOTANI, Wataru (Univ. of Tokyo)

Session Classification: Calo

Contribution ID: 10 Type: not specified

## Status of Cryostat design

Presenter: BUMBULOVIC, Mladen

Session Classification: Calo

Contribution ID: 11 Type: not specified

# Design of cryogenic system

**Presenter:** MIHARA, Satoshi (KEK)

Session Classification: Calo

Callibration

Contribution ID: 12 Type: not specified

### **Callibration**

**Presenter:** IWAMOTO, Toshiyuki (The University of Tokyo)

Session Classification: Calo

Contribution ID: 13 Type: not specified

# Full calo: Geometry implementation in simulation and analysis

Wednesday 8 January 2025 14:55 (15 minutes)

**Presenter:** DAVIS-PURCELL, Benjamin (TRIUMF)

Session Classification: Calo

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DAQ plans

Contribution ID: 14 Type: not specified

# DAQ plans

Session Classification: Calo

Contribution ID: 15 Type: not specified

### ATAR: Path to demonstrator

Tuesday 7 January 2025 13:50 (20 minutes)

**Presenter:** KAMMEL, Peter (University of Washington, Seattle)

Session Classification: ATAR

Contribution ID: 16 Type: not specified

### ATAR: Sensor development (and suppression)

Tuesday 7 January 2025 14:10 (20 minutes)

**Presenter:** YANG, Jessie (University of Washington)

Session Classification: ATAR

Contribution ID: 17 Type: not specified

### ATAR: Readout and digitization

Tuesday 7 January 2025 14:30 (20 minutes)

Presenter: MAZZA, Simone Michele (CERN)

Session Classification: ATAR

Contribution ID: 18 Type: not specified

### ATAR: Mechanics and DTAR

Tuesday 7 January 2025 14:50 (20 minutes)

**Presenter:** ROEHNELT, Ryan

Session Classification: ATAR

Contribution ID: 19 Type: not specified

# ATAR: Detector key performance parameters discussion

Tuesday 7 January 2025 15:10 (50 minutes)

**Presenter:** MAZZA, Simone Michele (CERN)

Session Classification: ATAR

Contribution ID: 20 Type: not specified

### Acceptance study

Wednesday 8 January 2025 10:15 (30 minutes)

**Presenter:** YANG, Jessie (University of Washington)

Session Classification: Simulations

Contribution ID: 21 Type: not specified

## Analysis of low E events

Wednesday 8 January 2025 09:45 (30 minutes)

**Presenter:** BEESLEY, Omar

**Session Classification:** Simulations

Contribution ID: 22 Type: not specified

### ATAR tracklets and pattern reconstruction

Wednesday 8 January 2025 11:15 (30 minutes)

**Presenter:** FOSTER, Sean (University of Kentucky)

Session Classification: Simulations

Contribution ID: 23 Type: not specified

### LXe event reconstruction and pileup identification

Wednesday 8 January 2025 11:45 (30 minutes)

**Presenter:** MATSUSHITA, Ayaka (The University of Tokyo)

Session Classification: Simulations

Contribution ID: 24 Type: not specified

# Overview and current status of the simulation, reco and analysis

Wednesday 8 January 2025 12:15 (30 minutes)

Presenter: SCHWENDIMANN, Patrick (University of Washington)

Session Classification: Simulations

Contribution ID: 25 Type: not specified

### **TRIUMF Tour - Early Career Group**

Thursday 9 January 2025 15:00 (1 hour)

Session Classification: TRIUMF tour

Contribution ID: 26 Type: not specified

### **TRIUMF Tour - Rest of collaboration**

Session Classification: TRIUMF tour

Contribution ID: 27 Type: not specified

### The MEG-II Experiment

Thursday 9 January 2025 16:00 (30 minutes)

**Presenter:** MATSUSHITA, Ayaka (The University of Tokyo)

Session Classification: EC

Contribution ID: 28 Type: not specified

### Beamtime @ CENPA

Thursday 9 January 2025 16:30 (30 minutes)

**Presenter:** YANG, Jessie (University of Washington)

Session Classification: EC

Contribution ID: 29 Type: not specified

# Building equity, diversity, and inclusion for a global physics collaboration

Wednesday 8 January 2025 16:30 (1h 15m)

Global physics collaborations that span different cultures and perspectives (and time zones!) present unique challenges to promoting equity, diversity, and inclusion (EDI). We'll explore methods for defining diversity and building inclusive strategies that meet the complex needs of a physics collaboration that spans multiple countries. We'll discuss lessons learned and best practices from the LIGO Scientific Collaboration and weave interactive exercises into our exploration of EDI approaches.

**Presenter:** Prof. MCIVER, Jess (UBC)

Session Classification: EDI session / Conf. Committee

Contribution ID: 30 Type: not specified

### Report from EDI committee

Wednesday 8 January 2025 17:45 (20 minutes)

**Presenter:** BEESLEY, Omar

**Session Classification:** EDI session / Conf. Committee

Contribution ID: 31 Type: not specified

### **Demographics Survey Report**

Wednesday 8 January 2025 18:05 (15 minutes)

**Presenter:** DAVIS-PURCELL, Benjamin (TRIUMF)

**Session Classification:** EDI session / Conf. Committee

Contribution ID: 32 Type: not specified

### **Report from Conference Committee**

Wednesday 8 January 2025 18:20 (10 minutes)

**Presenter:** OTT, Jennifer

**Session Classification:** EDI session / Conf. Committee

Contribution ID: 33 Type: not specified

### PIENU Lineshape measurement

Friday 10 January 2025 08:30 (20 minutes)

Presenter: ORTEGA, Iván

Session Classification: Lineshape measurement

Contribution ID: 34 Type: not specified

### Lessons learnt from the PIENU experiment

Friday 10 January 2025 08:50 (20 minutes)

**Presenter:** SULLIVAN, Tristan

**Session Classification:** Lineshape measurement

Discussions

Contribution ID: 35 Type: not specified

### **Discussions**

Friday 10 January 2025 09:10 (20 minutes)

**Presenter:** MISCHKE, Richard (TRUIMF)

**Session Classification:** Lineshape measurement

Welcome

Contribution ID: 36 Type: not specified

#### Welcome

Tuesday 7 January 2025 10:15 (25 minutes)

**Presenter:** MALBRUNOT, Chloe (TRIUMF)

Session Classification: Welcome & Theory

Theory talk

Contribution ID: 37 Type: not specified

# Theory talk

Tuesday 7 January 2025 10:40 (35 minutes)

Presenter: MCKEEN, David

**Session Classification:** Welcome & Theory

Contribution ID: 38 Type: not specified

## Analysis of 2022 beam test, AI/ML future plans

Thursday 9 January 2025 09:00 (15 minutes)

Presenter: FRAHM, Kolja (ETH Zurich)

Session Classification: Beam

Contribution ID: 39 Type: not specified

# Beam optimization

Thursday 9 January 2025 09:15 (15 minutes)

**Presenter:** HOCHREIN, Stefan (ETH Zürich)

Session Classification: Beam

Contribution ID: 40 Type: not specified

#### Pion lifetime and TRIUMF muSR beams

Thursday 9 January 2025 09:30 (25 minutes)

**Presenter:** VELGHE, Bob (TRIUMF)

Session Classification: Beam

Contribution ID: 41 Type: not specified

# Beam specs and impact on key performance parameters

Thursday 9 January 2025 09:55 (35 minutes)

Presenters: SOTER, Anna (ETH Zurich); KAMMEL, Peter (University of Washington, Seattle)

Session Classification: Beam

Contribution ID: 42 Type: not specified

## piE5 beamtest: CMS tracker

Thursday 9 January 2025 11:25 (15 minutes)

piE5 beamtest: CMS tracker

**Presenters:** EBRAHIMI, Aliakbar (PSI - Paul Scherrer Institut); ROHE, Tilman Volker (PSI - Paul

Scherrer Institut)

Session Classification: Planning session

Contribution ID: 43 Type: not specified

## $\pi$ -wave and APOLLO CM status, demonstrator plans

Tuesday 7 January 2025 11:15 (15 minutes)

Presenter: GIBBONS, Lawrence (Cornell University)

**Session Classification:** DAQ / Computing / Trigger

Contribution ID: 44 Type: **not specified** 

#### ATAR readout via NALU HDSOC

Tuesday 7 January 2025 11:30 (20 minutes)

**Presenter:** OTT, Jennifer

 $\textbf{Session Classification:} \ \ \mathsf{DAQ} \ / \ \mathsf{Computing} \ / \ \mathsf{Trigger}$ 

Contribution ID: 45 Type: not specified

#### ATAR readout via SAMPIC

Tuesday 7 January 2025 11:50 (20 minutes)

**Presenter:** BUAT, Quentin (University of Washington)

**Session Classification:** DAQ / Computing / Trigger

Contribution ID: 46 Type: not specified

## recent progress, BELLE II PCIe-based DAQ

Tuesday 7 January 2025 12:10 (20 minutes)

Presenters: CARLTON, John (University of Kentucky); GORRINGE, Tim (Dept. of Physics, Univ of

Kentucky)

**Session Classification:** DAQ / Computing / Trigger

Contribution ID: 47 Type: **not specified** 

## Organizational requirements to adopt wavedreams

Tuesday 7 January 2025 12:30 (15 minutes)

Presenters: IWAMOTO, Toshiyuki (PSI - Paul Scherrer Institut); IWAMOTO, Toshiyuki (The Uni-

versity of Tokyo)

Session Classification: DAQ / Computing / Trigger

Contribution ID: 48 Type: not specified

#### **ATAR** introduction

**Presenter:** MAZZA, Simone Michele (CERN)

**Session Classification:** DAQ / Computing / Trigger

Contribution ID: 49 Type: not specified

## **PMT** selections

Tuesday 7 January 2025 17:15 (15 minutes)

Presenters: SOTER, Anna (ETH Zurich); HOCHREIN, Stefan (ETH Zürich)

Session Classification: Calo

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Contribution ID: 50 Type: not specified

## Intro: KPP overview

Tuesday 7 January 2025 16:30 (5 minutes)

Intro: KPP overview

**Presenter:** HERTZOG, David (University of Washington)

Session Classification: Calo

Contribution ID: 51 Type: not specified

#### **KPP** overview

Tuesday 7 January 2025 13:45 (5 minutes)

**Presenter:** MAZZA, Simone Michele (CERN)

Session Classification: ATAR

Contribution ID: 52 Type: not specified

## piE5 beamtest: Goals, sensitivity and plan

Thursday 9 January 2025 11:00 (25 minutes)

piE5 beamtest: Goals, sensitivity · · ·

Presenters: SOTER, Anna (ETH Zurich); KAMMEL, Peter (University of Washington, Seattle)

Session Classification: Planning session

PIONEER Colla  $\,\cdots\,\,$  / Report of Contributions

Contribution ID: 53 Type: not specified

## piE5 beamtest: muRWell

Thursday 9 January 2025 11:40 (10 minutes)

piE5 beamtest: muRWell

**Presenter:** DATTA, Jaydeep (Stony Brook University, CFNS)

Session Classification: Planning session

Contribution ID: 54 Type: not specified

# piE5 beamtest: MuPix telescope

piE5 beamtest: MuPix telescope

**Presenter:** SOTER, Anna (ETH Zurich)

Session Classification: Planning session

Contribution ID: 55 Type: not specified

## piE5 beamtest: discussions

Thursday 9 January 2025 11:50 (15 minutes)

piE5 beamtest: discussions

**Presenter:** KAMMEL, Peter (University of Washington, Seattle)

Session Classification: Planning session

Contribution ID: 56 Type: not specified

## LYSO beam request

Thursday 9 January 2025 12:05 (10 minutes)

Presenters: SOTER, Anna (ETH Zurich); HERTZOG, David (University of Washington)

Session Classification: Planning session

Contribution ID: 57 Type: not specified

## PAC report: written and 4h presentations

Thursday 9 January 2025 12:15 (45 minutes)

Presenters: SCHUMM, Bruce (SCIPP / UC Santa Cruz); HERTZOG, David (University of Washing-

ton)

Session Classification: Planning session

Contribution ID: 58 Type: not specified

#### **Overview tracker KPP**

Wednesday 8 January 2025 08:30 (5 minutes)

**Presenter:** DATTA, Jaydeep (Stony Brook University, CFNS)

Session Classification: Tracker

Contribution ID: 59 Type: not specified

# gas detector technology

Wednesday 8 January 2025 08:35 (20 minutes)

**Presenter:** DATTA, Jaydeep (Stony Brook University, CFNS)

Session Classification: Tracker

Contribution ID: 60 Type: not specified

# **MAPS** technology

Wednesday 8 January 2025 08:55 (20 minutes)

**Presenter:** ROHE, Tilman Volker (PSI - Paul Scherrer Institut)

Session Classification: Tracker

Contribution ID: 61 Type: not specified

#### **Discussion Tracker KPP**

Wednesday 8 January 2025 09:15 (30 minutes)

Session Classification: Tracker

Contribution ID: 62 Type: not specified

## **NSF MRI proposal**

Friday 10 January 2025 09:30 (15 minutes)

**Presenter:** SCHUMM, Bruce (SCIPP / UC Santa Cruz)

Session Classification: Planning session

CFI proposal

Contribution ID: 63 Type: not specified

# **CFI** proposal

Friday 10 January 2025 09:45 (15 minutes)

**Presenter:** BRYMAN, Douglas (University of BC)

Session Classification: Planning session

Contribution ID: 64 Type: not specified

#### **Discussions**

Friday 10 January 2025 10:00 (30 minutes)

**Presenter:** HERTZOG, David (University of Washington)

Session Classification: Planning session

Contribution ID: 65 Type: not specified

## Simulation priorities

Friday 10 January 2025 11:00 (20 minutes)

**Presenter:** SCHWENDIMANN, Patrick (University of Washington)

Session Classification: Simulations