

PIONEER collaboration meeting



Report of Contributions

Contribution ID: 1

Type: **not specified**

Registration and Welcome

Monday, 16 October 2023 09:00 (1 hour)

Contribution ID: 2

Type: **not specified**

Welcome

Monday, 16 October 2023 10:00 (5 minutes)

Session Classification: Introduction and Overview

Contribution ID: 3

Type: **not specified**

Theory talk

Monday, 16 October 2023 10:05 (30 minutes)

Motivation, Anomalies & NP models connected those (25+5)

Presenter: CIRIGLIANO, Vincenzo (University of Washington)

Session Classification: Introduction and Overview

Contribution ID: 4

Type: **not specified**

PIENU Overview & Update

Monday, 16 October 2023 11:30 (30 minutes)

(20+10)

Presenter: MISCHKE, Richard (TRUIMF)

Session Classification: Introduction and Overview

Contribution ID: 5

Type: **not specified**

PEN Overview & Update

Monday, 16 October 2023 10:35 (30 minutes)

(20+10)

Presenter: GLASER, Charles (University of Virginia)

Session Classification: Introduction and Overview

Contribution ID: 6

Type: **not specified**

Exotics talk

Monday, 16 October 2023 17:20 (25 minutes)

sterile, heavy neutrinos - what can we do with PIONEER Phase 2
(20+5 min)

Presenter: ITO, Shintaro (National Institute of Technology, Kitakyushu College)

Contribution ID: 7

Type: **not specified**

Big picture

Monday, 16 October 2023 12:00 (20 minutes)

Where are we now?
What are the challenges?
Goals for the meeting
(15+5)

Primary author: HERTZOG, David (University of Washington)

Presenter: HERTZOG, David (University of Washington)

Session Classification: Introduction and Overview

Contribution ID: **8**

Type: **not specified**

Overview of the PiE5 beamline

Tuesday, 17 October 2023 08:30 (15 minutes)

PSI setting the stage & schedule discussion

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

Session Classification: Beam and Detector Systems

Contribution ID: 9

Type: **not specified**

Modeling of final beam section

Tuesday, 17 October 2023 08:45 (10 minutes)

Presenter: HOCHREIN, Stefan (ETH Zürich)

Session Classification: Beam and Detector Systems

Contribution ID: **10**

Type: **not specified**

Simulation Tool Overview

Tuesday, 17 October 2023 13:35 (25 minutes)

Primary author: SCHWENDIMANN, Patrick (University of Washington)

Presenter: SCHWENDIMANN, Patrick (University of Washington)

Session Classification: Simulation & Proto-Analysis

Contribution ID: 11

Type: **not specified**

ATAR Event characterization

Tuesday, 17 October 2023 14:00 (25 minutes)

Presenter: BUAT, Quentin (University of Washington)

Session Classification: Simulation & Proto-Analysis

Contribution ID: 12

Type: **not specified**

Calo Performance / PACMAN etc

Presenter: BEESLEY, Omar (University of Washington)

Session Classification: Simulation & Proto-Analysis

Contribution ID: 13

Type: **not specified**

Big Overview Summary with Event Mixing

Tuesday, 17 October 2023 14:25 (30 minutes)

Presenter: SCHWENDIMANN, Patrick (University of Washington)

Session Classification: Simulation & Proto-Analysis

Contribution ID: 14

Type: **not specified**

DAQ

Tuesday, 17 October 2023 16:35 (10 minutes)

Presenters: CARLTON, John (University of Kentucky); GORRINGE, Tim (University of Kentucky)

Session Classification: Electronics & DAQ

Contribution ID: 15

Type: **not specified**

Trigger

Tuesday, 17 October 2023 17:00 (25 minutes)

Presenter: POCANIC, Dinko (University of Virginia)

Session Classification: Electronics & DAQ

Contribution ID: **16**

Type: **not specified**

EDI

External speaker & introduction

Session Classification: Collaboration session

Contribution ID: 17

Type: **not specified**

Speaker's Committee Report

Wednesday, 18 October 2023 08:30 (10 minutes)

Presenter: OTT, Jennifer (UCSC)

Session Classification: Collaboration session

Contribution ID: **18**

Type: **not specified**

1st “Org Chart” Discussion

Wednesday, 18 October 2023 08:40 (20 minutes)

FTEs each institute, author list discussion, homepage, different committees, twiki

Presenter: HERTZOG, David (University of Washington)

Session Classification: Collaboration session

Contribution ID: 19

Type: **not specified**

Discussion (all); Where are we now? Summary, wrap-up of progress

Wednesday, 18 October 2023 09:15 (45 minutes)

This is meant to be a directed Discussion of our Meeting with Priorities articulated.

Presenter: KAMMEL, Peter (University of Washington)

Session Classification: Planning Session

Contribution ID: **20**

Type: **not specified**

Plans for PSI BVR 55 & 2024 beam time request

Wednesday, 18 October 2023 10:00 (45 minutes)

Submission Deadline: January 22, 2024

New Beam Request

Progress Report / half day presentations

<https://www.psi.ch/en/sbl/call-for-beam-time-requests>

Presenter: BRYMAN, Douglas (UBC / TRIUMF)

Session Classification: Planning Session

Contribution ID: 21

Type: **not specified**

Tracker Status and Plan

Monday, 16 October 2023 13:20 (25 minutes)

(20+5)

Presenter: DATTA, Jaydeep (Stony Brook University)

Session Classification: ATAR & Tracker

Contribution ID: 22

Type: **not specified**

Overview of ATAR physics requirements and simulation/analysis

Monday, 16 October 2023 13:45 (25 minutes)

(20+5)

Presenter: WONG, Vincent (TRIUMF)

Session Classification: ATAR & Tracker

Contribution ID: 23

Type: **not specified**

Readout Board and Mechanical Support for ATAR

Monday, 16 October 2023 14:10 (20 minutes)

(15+5)

Primary author: KAMMEL, Peter (University of Washington, Seattle)

Presenters: PETERSON, David (University of Washington); KAMMEL, Peter (University of Washington, Seattle); VAN WECHEL, Tim (University of Washington)

Session Classification: ATAR & Tracker

Contribution ID: 24

Type: **not specified**

ATAR geometry and simulation

Monday, 16 October 2023 14:30 (25 minutes)

(20+5)

Presenters: MOLNAR, Adam (UCSC); MEHROTRA, Siddhant (Stony Brook University)

Session Classification: ATAR & Tracker

Contribution ID: 25

Type: **not specified**

Preliminary results of Beam Tests

Monday, 16 October 2023 14:55 (20 minutes)

(15+5)

Presenters: BUAT, Quentin (University of Washington); BRAUN, Svende (University of Washington)

Session Classification: ATAR & Tracker

Contribution ID: 26

Type: **not specified**

Latest characterization of sensors, plus readout electronics and digitizers

Monday, 16 October 2023 15:40 (30 minutes)

(25+5)

Presenters: SCHUMM, Bruce (SCIPP / UC Santa Cruz); OTT, Jennifer (UCSC)

Session Classification: ATAR & Tracker

Contribution ID: 27

Type: **not specified**

Hardware Progress from BNL

Monday, 16 October 2023 16:10 (20 minutes)

(15+5)

Presenters: MEHROTRA, Siddhant (Stony Brook University); TISHCHENKO, Vladimir (BNL)

Session Classification: ATAR & Tracker

Contribution ID: 28

Type: **not specified**

Status of the ATAR baseline design, what we have, what's missing

Monday, 16 October 2023 16:30 (15 minutes)

(10+5)

Presenter: MAZZA, Simone Michele (CERN)

Session Classification: ATAR & Tracker

Contribution ID: 29

Type: **not specified**

Evolution of the ATAR alternative design

Monday, 16 October 2023 16:45 (15 minutes)

(10+5)

Presenter: QIAN, Xin (BNL)

Session Classification: ATAR & Tracker

Contribution ID: **30**

Type: **not specified**

Discussions

Presenter: MAZZA, Simone Michele (CERN)

Session Classification: ATAR & Tracker

Contribution ID: **31**

Type: **not specified**

piE5 optimization with machine learning

Tuesday, 17 October 2023 08:55 (10 minutes)

Presenter: ADELMANN, Andreas (PSI - Paul Scherrer Institut)

Session Classification: Beam and Detector Systems

Contribution ID: **32**

Type: **not specified**

Discussion

Tuesday, 17 October 2023 09:05 (15 minutes)

Session Classification: Beam and Detector Systems

Contribution ID: 33

Type: **not specified**

Generic Calo Simulations

Tuesday, 17 October 2023 09:20 (20 minutes)

15 + 5 minutes

resolution/X0/volume, physics lists (albedo)

Presenter: BEESLEY, Omar (University of Washington)

Session Classification: Calorimeter & Testbeam

Contribution ID: **34**

Type: **not specified**

MEG Calibration that should carry over to PIONEER

Tuesday, 17 October 2023 10:05 (15 minutes)

10 + 5 minutes

Presenter: IWAMOTO, Toshiyuki (The University of Tokyo)

Session Classification: Calorimeter & Testbeam

Contribution ID: 35

Type: **not specified**

MEG reconstruction of energy resolution

Tuesday, 17 October 2023 10:20 (15 minutes)

10 + 5 minutes

Presenter: BAN, Sei (ICEPP, The university of Tokyo)

Session Classification: Calorimeter & Testbeam

Contribution ID: 36

Type: **not specified**

MEG analysis of photonuclear events and pileup handling

Tuesday, 17 October 2023 10:35 (15 minutes)

10 + 5 minutes

Presenter: UCHIYAMA, Yusuke (PSI - Paul Scherrer Institut)

Session Classification: Calorimeter & Testbeam

Contribution ID: 37

Type: **not specified**

LXe Prototype Status updates

Tuesday, 17 October 2023 11:10 (25 minutes)

20 + 5 minutes

Presenter: MALBRUNOT, Chloe (TRIUMF)

Session Classification: Calorimeter & Testbeam

Contribution ID: **38**

Type: **not specified**

Calibration methods for LYSO

Tuesday, 17 October 2023 12:05 (15 minutes)

Presenter: SWANSON, Erik (University of Washington)

Session Classification: Calorimeter & Testbeam

Contribution ID: **39**

Type: **not specified**

specific PSI local testbeam presentation

Tuesday, 17 October 2023 12:20 (15 minutes)

10 + 5 minutes

Presenter: HERTZOG, David (University of Washington)

Session Classification: Calorimeter & Testbeam

Contribution ID: 40

Type: **not specified**

Simulation Discussion

Tuesday, 17 October 2023 14:55 (20 minutes)

- what are the challenges

Presenter: HERTZOG, David (University of Washington)

Session Classification: Simulation & Proto-Analysis

Contribution ID: 41

Type: **not specified**

Speaker's Committee Report

Session Classification: Collaboration session

Contribution ID: 42

Type: **not specified**

External speaker - Dr. Elizabeth Litzler

Tuesday, 17 October 2023 15:35 (45 minutes)

(30+15minutes)

Abstract:

This presentation will help participants see how they as individuals and how their organizations can help create inclusive and equitable cultures. The presentation will describe research around inclusion and engage the attendees in problem identification and action planning exercises at the individual and organizational levels.

Presenter: LITZLER, Elizabeth (University of Washington)

Session Classification: EDI session

Contribution ID: 43

Type: **not specified**

DEI committee introduction

Tuesday, 17 October 2023 16:20 (15 minutes)

Present DEI committee, DEI resources available on the website, foreseen actions of the committee and in particular present the goals of the upcoming survey and clarify chain of responsibilities, discuss and agree upon Code of Conduct

Presenter: MALBRUNOT, Chloe (TRIUMF)

Session Classification: EDI session

Contribution ID: 44

Type: **not specified**

Acceptance/Tail/Pileup studies - relations between ATAR and Calo

Tuesday, 17 October 2023 09:40 (25 minutes)

20 + 5 minutes

how those relations influence geometry and technology choice

Presenter: QIAN, Xin (BNL)

Session Classification: Calorimeter & Testbeam

Contribution ID: 45

Type: **not specified**

LXe procurement

Tuesday, 17 October 2023 11:35 (15 minutes)

Presenter: ZHANG, Yousen (BNL)

Session Classification: Calorimeter & Testbeam

Contribution ID: 46

Type: **not specified**

LYSO test beam results

Tuesday, 17 October 2023 11:50 (15 minutes)

10 + 5 minutes

Presenter: BEESLEY, Omar (University of Washington)

Session Classification: Calorimeter & Testbeam

Contribution ID: 47

Type: **not specified**

Closing discussions

Tuesday, 17 October 2023 12:35 (10 minutes)

Presenter: MALBRUNOT, Chloe (TRIUMF)

Session Classification: Calorimeter & Testbeam

Contribution ID: 48

Type: **not specified**

Pion Lifetime

Wednesday, 18 October 2023 09:00 (15 minutes)

Presenter: VELGHE, Bob (TRIUMF)

Contribution ID: 49

Type: **not specified**

ATAR discussions

Monday, 16 October 2023 17:00 (20 minutes)

Presenter: MAZZA, Simone Michele (CERN)

Session Classification: ATAR & Tracker

Contribution ID: 50

Type: **not specified**

Registration and Welcome

Contribution ID: 51

Type: **not specified**

Exotics talk

Presenter: ITO, Shintaro (National Institute of Technology, Kitakyushu College)

Contribution ID: 52

Type: **not specified**

Electronics development

Tuesday, 17 October 2023 16:45 (15 minutes)

Presenter: GIBBONS, Lawrence (Cornell University)

Session Classification: Electronics & DAQ

Contribution ID: 53

Type: **not specified**

Frontiers of Physics public lecture

Tuesday, 17 October 2023 19:30 (1h 30m)

'More perfect than we imagined: A physicist's view of life, William Bialek, Princeton University'
link to the event to register for everyone who is interested: <https://phys.washington.edu/events/2023-10-17/more-perfect-we-imagined-physicists-view-life>