

Streaming Readout Workshop SRO-XII

Report of Contributions

Contribution ID: 1

Type: **not specified**

opening: practical information

Monday, 2 December 2024 08:50 (10 minutes)

Presenter: GUNJI, Taku (Center for Nuclear Study, the University of Tokyo)

Contribution ID: 2

Type: **not specified**

sroCODA (remote)

Monday, 2 December 2024 09:00 (30 minutes)

Presenter: ABBOTT, David (Jefferson Lab)

Session Classification: SRO framework and experiences (I)

Contribution ID: 3

Type: **not specified**

Microservice framework for SRO (remote)

Monday, 2 December 2024 09:30 (30 minutes)

Presenter: TSAI, Jeng-Yuan (Jefferson Lab)

Session Classification: SRO framework and experiences (I)

Contribution ID: 4

Type: **not specified**

SRO overview and test experiences at Jlab (remote)

Monday, 2 December 2024 10:00 (30 minutes)

Presenter: TIMMER, Carl (Jefferson Lab)

Session Classification: SRO framework and experiences (I)

Contribution ID: 5

Type: **not specified**

SRO application: Streamlined Generic DAQ Tool for Detector R&D

Monday, 2 December 2024 17:30 (20 minutes)

Presenter: LIU, Hanjie (UMass, Amherst)

Session Classification: ASIC, FEC, DAM for SRO (I)

Contribution ID: 6

Type: **not specified**

rcdaq at sPHENIX (remote)

Monday, 2 December 2024 11:30 (30 minutes)

Presenter: PURSCHKE, Martin (BNL)

Session Classification: SRO framework and experience (II)

Contribution ID: 7

Type: **not specified**

Streaming Experience with sPHENIX TPC (remote)

Monday, 2 December 2024 12:00 (30 minutes)

Presenter: HUGHES, Charles (Iowa State University)

Session Classification: SRO framework and experience (II)

Contribution ID: 8

Type: **not specified**

Streaming Experience with sPHENIX INTT

Monday, 2 December 2024 12:30 (30 minutes)

Presenter: Dr NUKAZUKA, Genki (RIKEN/RIKEN BNL Research Center)

Session Classification: SRO framework and experience (II)

Contribution ID: 9

Type: **not specified**

Autonomous selection of physics events

Monday, 2 December 2024 15:00 (30 minutes)

Presenter: DEAN, Cameron (MIT)

Session Classification: Calibration and Processing in SRO (I)

Contribution ID: 10

Type: **not specified**

Nanosecond anomaly detection & data compression with decision tree autoencoder on FPGA

Tuesday, 3 December 2024 15:30 (30 minutes)

Presenters: HONG, Tae Min (University of Pittsburgh (US)); HONG, Tae Min (University of Pittsburgh)

Session Classification: Calibration and Processing in SRO (II)

Contribution ID: 11

Type: **not specified**

Data filtering on GPU for the dRICH detector

Monday, 2 December 2024 16:00 (30 minutes)

Presenter: Dr PONTISSO, Luca (National Institute for Nuclear Physics (INFN))

Session Classification: Calibration and Processing in SRO (I)

Contribution ID: 12

Type: **not specified**

Noise reduction for dRICH

Monday, 2 December 2024 16:30 (30 minutes)

Presenter: ROSSI, Cristian

Session Classification: Calibration and Processing in SRO (I)

Contribution ID: 13

Type: **not specified**

CAEN solutions for SRO

Monday, 2 December 2024 17:50 (30 minutes)

Presenter: CERRETANI, Giovanni

Session Classification: ASIC, FEC, DAM for SRO (I)

Contribution ID: 14

Type: **not specified**

Fast Electronics for SRO (remote)

Monday, 2 December 2024 11:00 (30 minutes)

Presenter: Mr CUEVAS, Chris (Jefferson Lab)

Session Classification: SRO framework and experience (II)

Contribution ID: 15

Type: **not specified**

PCIe400 (remote)

Monday, 2 December 2024 18:20 (30 minutes)

Presenter: NEUFELD, Niko

Session Classification: ASIC, FEC, DAM for SRO (I)

Contribution ID: 16

Type: **not specified**

ePIC SRO DAQ overview (remote)

Tuesday, 3 December 2024 08:30 (30 minutes)

Presenter: LANDGRAF, Jeff (Brookhaven National Laboratory)

Session Classification: ePIC SRO

Contribution ID: 17

Type: **not specified**

ePICにおけるストリーミングコンピューティング (Streaming Computing)

Tuesday, 3 December 2024 09:00 (30 minutes)

Presenter: Dr DIEFENTHALER, Markus (Jefferson Lab)

Session Classification: ePIC SRO

Contribution ID: 18

Type: **not specified**

Orchestration of Streaming data processing (remote)

Tuesday, 3 December 2024 09:30 (30 minutes)

Presenter: WENAUS, Torre (BNL)

Session Classification: ePIC SRO

Contribution ID: 19

Type: **not specified**

JANA2 for streaming data processing (remote)

Tuesday, 3 December 2024 10:00 (30 minutes)

Presenter: BREI, Nathan (Jefferson Lab)

Session Classification: ePIC SRO

Contribution ID: 20

Type: **not specified**

nestDAQ framework development

Tuesday, 3 December 2024 11:00 (30 minutes)

Presenter: TAKAHASHI, Tomonori (RCNP, Osaka University)

Session Classification: SRO framework and experience (III)

Contribution ID: 21

Type: **not specified**

nestDAQ tests at J-PARC

Tuesday, 3 December 2024 11:30 (30 minutes)

Presenter: SHIOTORI, Kotaro (RCNP)

Session Classification: SRO framework and experience (III)

Contribution ID: 22

Type: **not specified**

SPADI and artemis framework for SRO processing

Tuesday, 3 December 2024 12:00 (30 minutes)

Presenter: OTA, Shinsuke (RCNP, Osaka University)

Session Classification: SRO framework and experience (III)

Contribution ID: 23

Type: **not specified**

Discussion:collaboration between SPADI-A, JLab and BNL to build SRO DAQ/Computing

Tuesday, 3 December 2024 12:30 (30 minutes)

Contribution ID: 24

Type: **not specified**

Fast2D Convolutional Autoencoder for data compression of 3D time projection chamber

Tuesday, 3 December 2024 15:00 (30 minutes)

Presenter: REN, Yihui

Session Classification: Calibration and Processing in SRO (II)

Contribution ID: 25

Type: **not specified**

ATLAS TRIGGER AND DAQ CURRENT AND FUTURE

Tuesday, 3 December 2024 16:00 (30 minutes)

Presenter: NAGANO, Kunihiro (KEK)

Session Classification: Calibration and Processing in SRO (II)

Contribution ID: 26

Type: **not specified**

Real-Time data reduction with Artificial Intelligence for SRO

Monday, 2 December 2024 15:30 (30 minutes)

Presenter: ROSSI, Fabio

Session Classification: Calibration and Processing in SRO (I)

Contribution ID: 27

Type: **not specified**

Data processing acceleration for the Belle II experiment

Tuesday, 3 December 2024 16:30 (30 minutes)

Presenter: ZHOU, Qi-Dong

Session Classification: Calibration and Processing in SRO (II)

Contribution ID: 28

Type: **not specified**

OMEGA asics for SRO (remote)

Tuesday, 3 December 2024 17:30 (30 minutes)

Presenter: DE LA TAILLE, Christophe (OMEGA CNRS/IN2P3-Ecole Polytechnique (FR))

Session Classification: ASIC, FEC, DAM for SRO (II)

Contribution ID: 29

Type: **not specified**

SRO ASICs for HEP from INFN (remote)

Tuesday, 3 December 2024 18:00 (30 minutes)

Presenter: RIVETTI, Angelo

Session Classification: ASIC, FEC, DAM for SRO (II)

Contribution ID: **30**

Type: **not specified**

Felix DAM (remote)

Wednesday, 4 December 2024 08:30 (30 minutes)

Presenter: XU, hao (bnl)

Session Classification: ASIC, FEC, DAM for SRO (III)

Contribution ID: **31**

Type: **not specified**

ASICs for SRO in ePIC (remote)

Wednesday, 4 December 2024 09:00 (30 minutes)

Presenter: BARBOSA, Fernando (JLab)

Session Classification: ASIC, FEC, DAM for SRO (III)

Contribution ID: 32

Type: **not specified**

ePIC Timing and Synchronization (remote)

Wednesday, 4 December 2024 09:30 (30 minutes)

Presenter: GU, William (Jefferson Lab)

Session Classification: ASIC, FEC, DAM for SRO (III)

Contribution ID: 33

Type: **not specified**

NALU aiscs for SRO (remote)

Wednesday, 4 December 2024 10:00 (20 minutes)

Presenter: MACCHIARULO, Luca (NALU)

Session Classification: ASIC, FEC, DAM for SRO (III)

Contribution ID: 34

Type: **not specified**

AI for Experimental Control (remote - tbc)

Wednesday, 4 December 2024 11:00 (30 minutes)

Presenter: JESKE, Torri (Jefferson Lab)

Session Classification: Calibration and Processing in SRO (III)

Contribution ID: 35

Type: **not specified**

Fast ML on FPGA for Particle Identification and Tracking (remote)

Wednesday, 4 December 2024 11:30 (30 minutes)

Presenter: FURLETOV, Sergey (JLab)

Session Classification: Calibration and Processing in SRO (III)

Contribution ID: 36

Type: **not specified**

Deep(er)RICH: Deep Learning for Cherenkov PID at EIC (remote)

Wednesday, 4 December 2024 12:00 (30 minutes)

Presenter: GIROUX, James (University Of Regina)

Session Classification: Calibration and Processing in SRO (III)

Contribution ID: 37

Type: **not specified**

Discussion : Work plans for ePIC SRO DAQ/Computng

Contribution ID: **38**

Type: **not specified**

SRO prospects and preparations at FRIB

Wednesday, 4 December 2024 15:00 (30 minutes)

Presenter: CERIZZA, Giordano (FRIB)

Session Classification: SRO and FEC prospects

Contribution ID: 39

Type: **not specified**

Development of waveform digitizer for RIBF

Wednesday, 4 December 2024 15:30 (30 minutes)

Presenter: KITAMURA, Noritaka (CNS, Univ. of Tokyo)

Session Classification: SRO and FEC prospects

Contribution ID: 40

Type: **not specified**

Closing

Wednesday, 4 December 2024 16:00 (10 minutes)

Presenters: CAMSONNE, Alexandre (JLAB); BERNAUER, Jan (Stony Brook University); BATTAGLIERI, Marco; BATTAGLIERI, Marco (Jefferson Lab); GUNJI, Taku (Center for Nuclear Study, the University of Tokyo)

Contribution ID: 41

Type: **not specified**

Development of a streaming –capable ASIC with some AI/ML features (remote)

Wednesday, 4 December 2024 12:30 (30 minutes)

Presenter: MANDAL, Soumyajit (Brookhaven National Laboratory)

Session Classification: Calibration and Processing in SRO (III)

Contribution ID: 42

Type: **not specified**

Clock Timing Synchronization Module with AMD Kria SOM

Monday, 2 December 2024 19:00 (1 minute)

Presenter: BABA, Hidetada

Session Classification: Poster session and Welcome reception

Contribution ID: 43

Type: **not specified**

Sub-nanosecond accuracy clock synchronization protocol for distributed data acquisition system

Monday, 2 December 2024 19:01 (1 minute)

Presenter: HONDA, Ryotaro

Session Classification: Poster session and Welcome reception

Contribution ID: 44

Type: **not specified**

Data readout of the intermediate track detector INTT in the RHIC-sPHENIX experiment

Monday, 2 December 2024 19:02 (1 minute)

Presenter: KANO, Mai

Session Classification: Poster session and Welcome reception

Contribution ID: 45

Type: **not specified**

Development status of high-level online filtering for a generic streaming DAQ system

Monday, 2 December 2024 19:03 (1 minute)

Presenter: FURUKAWA, Fumiya

Session Classification: Poster session and Welcome reception

Contribution ID: 46

Type: **not specified**

High-speed data processing in the RIBF DAQ system using the Alveo data-center accelerator card

Monday, 2 December 2024 19:04 (1 minute)

Presenter: ICHINOHE, Yuto

Session Classification: Poster session and Welcome reception

Contribution ID: 47

Type: **not specified**

Streaming DAQ for GeV Photon Beam Profile Monitor at RARiS

Monday, 2 December 2024 19:05 (1 minute)

Presenter: KINO, Ryoko

Session Classification: Poster session and Welcome reception

Contribution ID: 48

Type: **not specified**

opening address

Monday, 2 December 2024 08:45 (5 minutes)

Presenter: NAKAMURA, Satoshi

Contribution ID: 49

Type: **not specified**

ALPHACORE ASICs for SRO (remote)

Wednesday, 4 December 2024 10:20 (20 minutes)

Presenter: MIKKOLA, Esko

Session Classification: ASIC, FEC, DAM for SRO (III)