ACTS Developers Workshop

Report of Contributions

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

Introduction & Welcome

Monday 26 September 2022 10:00 (10 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: General

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

Project overview and status

Monday 26 September 2022 10:15 (30 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: General

Contribution ID: **3**　　　　　　　　　　　　　　　Type: **not specified**

Status Overview ACTS R&D Lines

Session Classification: General

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

Geometry & Event Data Model

Monday 26 September 2022 13:30 (15 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: General

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

Propagation

Monday 26 September 2022 13:45 (15 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: General

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

Seeding & Pattern

Monday 26 September 2022 14:00 (30 minutes)

Presenters: FALDA COELHO, Luis (CERN); Mr SWATMAN, Stephen Nicholas (University of Amsterdam (NL))

Session Classification: General

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

Fitting

Monday 26 September 2022 14:30 (30 minutes)

Presenters: PFLEGER, Alexander J (University of Graz (AT)); HUTH, Benjamin; AI, Xiaocong (DESY)

Session Classification: General

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

Vertexing

Monday 26 September 2022 15:00 (20 minutes)

Presenter: GARG, Rocky Bala (Stanford University (US))

Session Classification: General

Contribution ID: **9** Type: **not specified**

ATLAS

Monday 26 September 2022 16:00 (15 minutes)

Presenter: STYLES, Nicholas (Deutsches Elektronen-Synchrotron (DE))

Session Classification: General

Contribution ID: **10**   Type: **not specified**

sPHENIX

Monday 26 September 2022 16:20 (15 minutes)

Presenter: FRAWLEY, Anthony (Florda State University)

Session Classification: General

Contribution ID: **11**   Type: **not specified**

BGV

Monday 26 September 2022 17:00 (15 minutes)

Presenter: KOLBINGER, Bernadette (CERN)

Session Classification: General

Contribution ID: **12**   Type: **not specified**

FASER

Monday 26 September 2022 17:20 (15 minutes)

Presenter: LI, Ke (University of Washington (US))

Session Classification: General

Contribution ID: **13**   Type: **not specified**

ALICE O3

Monday 26 September 2022 16:40 (15 minutes)

Presenter: LARIONOV, Pavel (CERN)

Session Classification: General

Contribution ID: **14**   Type: **not specified**

LDMX

Monday 26 September 2022 17:40 (10 minutes)

Presenter: BUTTI, Pierfrancesco (SLAC National Accelerator Laboratory (US))

Session Classification: General

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

EPIC (EIC)

Monday 26 September 2022 17:55 (15 minutes)

Presenter: LI, Shujie (Berkeley Lab)

Session Classification: General

Contribution ID: **16** Type: **not specified**

Status Overview Build & Infrastructure

Monday 26 September 2022 10:50 (20 minutes)

Presenter: GESSINGER, Paul (CERN)

Session Classification: General

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

Geometry: Proposal for geometry without layers

Tuesday 27 September 2022 09:30 (20 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: General

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

Event Data Model: Upcoming developments

Tuesday 27 September 2022 10:00 (20 minutes)

Presenter: GESSINGER, Paul (CERN)

Session Classification: General

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

Build resources common pitfalls

Tuesday 27 September 2022 11:00 (20 minutes)

Presenters:　GRASLAND, Hadrien Benjamin (Université Paris-Saclay (FR));　GRASLAND, Hadrien (IJCLab)

Session Classification:　General

Contribution ID: **20**
Type: **not specified**

Discussion: Alignment

Tuesday 27 September 2022 11:25 (20 minutes)

Presenter: AI, Xiaocong (DESY)

Session Classification: General

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

Discussion: Drift Chambers and non-planar detectors

Tuesday 27 September 2022 11:50 (20 minutes)

Presenters: SALZBURGER, Andreas (CERN);   AI, Xiaocong (DESY)

Session Classification: General

Contribution ID: **22**   Type: **not specified**

Discussion: traccc -> Acts(Core)

Tuesday 27 September 2022 17:20 (20 minutes)

A discussion on how the traccc algorithms would be transplanted into Acts(Core/Plugin) tools/components at the conclusion of the R&D effort.

Session Classification: R&D Lines

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

Status & Plans: algebra-plugins, detray

Tuesday 27 September 2022 15:30 (20 minutes)

An overview of the current status of the algebra-plugins and detray projects, and the remaining developments going on with them.

Presenters:　YEO, Beomki (Lawrence Berkeley National Lab. (US)); NIERMANN, Joana (Georg August Universitaet Goettingen (DE))

Session Classification:　R&D Lines

Contribution ID: **24**   Type: **not specified**

Status & Plans: traccc

Tuesday 27 September 2022 16:20 (20 minutes)

An overview of the traccc project, showing its current status and the remaining plans with it.

Presenter: METELO RITA DE ALMEIDA, Guilherme (Universidade de Lisboa (PT))

Session Classification: R&D Lines

Contribution ID: **25** Type: **not specified**

Discussion: (Event) Data Model

Tuesday 27 September 2022 16:50 (20 minutes)

A discussion about the data model used in the R&D projects, and how it would be translated into the Acts project.

Session Classification: R&D Lines

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

Status & Plans: covfie

Tuesday 27 September 2022 15:55 (10 minutes)

A description of the library providing generic vector field descriptions for the R&D project.

Presenter: Mr SWATMAN, Stephen Nicholas (University of Amsterdam (NL))

Session Classification: R&D Lines

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

Auto-tuning in acts for seeding and vertexing

Tuesday 27 September 2022 13:30 (20 minutes)

Presenter:　GARG, Rocky Bala (Stanford University (US))

Session Classification:　R&D Lines

Contribution ID: **28**   Type: **not specified**

Auto-tuning of the Acts material mapping with Orion

Tuesday 27 September 2022 13:55 (20 minutes)

Presenter: ALLAIRE, Corentin (Université Paris-Saclay (FR))

Session Classification: R&D Lines

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

Tracking with Hashing in ACTS

Tuesday 27 September 2022 14:20 (20 minutes)

Presenter: COUTHURES, Jeremy (Centre National de la Recherche Scientifique (FR))

Session Classification: R&D Lines

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

Exatrkx-ACTS integration & GNN applications

Tuesday 27 September 2022 14:45 (10 minutes)

Presenter: JU, Xiangyang (Lawrence Berkeley National Lab. (US))

Session Classification: R&D Lines

Contribution ID: **31**   Type: **not specified**

Using Optuna and Orion to tune seeding parameters

Wednesday 28 September 2022 13:30 (30 minutes)

Presenter: GARG, Rocky Bala (Stanford University (US))

Session Classification: Tutorials

Contribution ID: **32**   Type: **not specified**

Using Orion to tune the material mapping

Wednesday 28 September 2022 14:00 (30 minutes)

Presenter: ALLAIRE, Corentin (Université Paris-Saclay (FR))

Session Classification: Tutorials

Contribution ID: **33**　　　　　　　　　　　　　　　　　　Type: **not specified**

Using the Exa.TrkX GNN in Acts

Wednesday 28 September 2022 14:30 (30 minutes)

Presenter: HUTH, Benjamin

Session Classification: Tutorials

Contribution ID: **34** Type: **not specified**

Fatras (cancelled)

Monday 26 September 2022 15:20 (10 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: General

Contribution ID: **35**
Type: **not specified**

Getting started with ACTS + ACTS demonstrator

Wednesday 28 September 2022 09:30 (20 minutes)

Session Classification: Tutorials

Contribution ID: **36** Type: **not specified**

My own ACTS algorithm

Session Classification: Tutorials

Contribution ID: **37** Type: **not specified**

My own ACTS detector

Session Classification: Tutorials

Contribution ID: **38** Type: **not specified**

Writing an algorithm

Wednesday 28 September 2022 09:50 (20 minutes)

Tutorial how to write an algorithm and use it within the Example framework in a meaningful manner.

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: Tutorials

Contribution ID: **39**   Type: **not specified**

Full Chain Tutorial

Wednesday 28 September 2022 11:00 (30 minutes)

Presenter: STEFL, Andreas (Technische Universitaet Wien (AT))

Session Classification: Tutorials

Contribution ID: **40**
Type: **not specified**

Overlfow item: Fatras

Wednesday 28 September 2022 11:30 (20 minutes)

Presenter: SALZBURGER, Andreas (CERN)

Session Classification: Tutorials