

1st FCC-ee TDAQ Workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome and practical matters

Thursday, 6 November 2025 09:00 (10 minutes)

Details about coffee breaks, the lunch break, a welcome on behalf of organisers, etc

Presenter: SCHRAMM, Steven (Universite de Geneve (CH))

Session Classification: Introduction

Contribution ID: 2

Type: **not specified**

Introduction to the workshop and overall context

Thursday, 6 November 2025 09:10 (15 minutes)

Overview of detector concept plans, timelines, next steps, etc

Presenter: DAM, Mogens (University of Copenhagen (DK))

Session Classification: Introduction

Contribution ID: 3

Type: **not specified**

Introduction to the TDAQ context

Thursday, 6 November 2025 09:30 (15 minutes)

Motivation for why TDAQ at FCCee needs to be discussed now, questions to detector community, etc

Presenter: WENGLER, Thorsten (CERN)

Session Classification: Introduction

Contribution ID: 4

Type: **not specified**

Updates from DRD7: DAQ and on-detector processing

Thursday, 6 November 2025 09:50 (20 minutes)

Overview of DRD7 developments underway, focusing on those that are targeted at / of great relevance to FCCee usage

Presenter: NEUFELD, Niko (CERN)

Session Classification: Introduction

Contribution ID: 5

Type: **not specified**

The path toward common DAQ solutions

Thursday, 6 November 2025 10:20 (15 minutes)

Development of a path toward a more common DAQ, both in terms of hardware and software, and relevance to FCCee detector concepts

Presenter: LEHMANN, Giovanna (CERN)

Session Classification: Introduction

Contribution ID: 6

Type: **not specified**

Machine-detector interface: overview of background sources and simulation status

Thursday, 6 November 2025 11:30 (20 minutes)

Overview of the many beam background sources, highlighting the simulation status of each, with a target audience of the detector concept community (to use for occupancy studies and similar)

Presenter: NIGRELLI, Giulia (Sapienza Universita, INFN-LNF, CERN)

Session Classification: Machine-detector interface

Contribution ID: 7

Type: **not specified**

Machine-detector interface: inputs for the FCCee beam-optics decision

Thursday, 6 November 2025 11:15 (10 minutes)

Before the workshop, each detector concept aims to run on at least one beam background simulation file to get some occupancy numbers with modern simulation. This talk will therefore inform about the upcoming beam optics decision, and list the studies that would be useful as inputs + key samples to compare, as well as clearly stating the timeline.

Presenter: BOSCOLO, Manuela (INFN e Laboratori Nazionali di Frascati (IT))

Session Classification: Machine-detector interface

Contribution ID: 8

Type: **not specified**

Machine-detector interface: beam and detector simulation interface studies

Thursday, 6 November 2025 12:00 (15 minutes)

Studies on the way in which the interface is defined between the beam simulation and the detector simulation and the corresponding impact. Beam simulations via GuineaPig will be interfaced in different ways with the detector simulation via Geant. Modeling improvements of GuineaPig, including these interface effects, will be presented.

Presenter: EYSERMANS, Jan (Massachusetts Inst. of Technology (US))

Session Classification: Machine-detector interface

Contribution ID: 9

Type: **not specified**

Software: MDI geometries and detector simulation

Thursday, 6 November 2025 14:00 (10 minutes)

Link of MDI to the simulation effort, focusing primarily on geometries and detector simulation of beam background processes

Presenter: CIARMA, Andrea (INFN e Laboratori Nazionali di Frascati (IT))

Session Classification: Software and detector concepts

Contribution ID: **10**

Type: **not specified**

Software: sub-detector digitisers for rate studies

Thursday, 6 November 2025 14:15 (10 minutes)

Overview of digitisation status for different detector concept sub-detectors

Presenter: KO, Sang Hyun (Seoul National University (KR))

Session Classification: Software and detector concepts

Contribution ID: 11

Type: **not specified**

Software: common GitHub for simulation and occupancy studies

Thursday, 6 November 2025 14:30 (5 minutes)

Very short announcement of the common GitHub effort and invitation for the community to participate/contribute

Presenter: FRANCHELLUCCI, Stefano (Universite de Geneve (CH))

Session Classification: Software and detector concepts

Contribution ID: 12

Type: **not specified**

Detector concept inputs: ALLEGRO

Thursday, 6 November 2025 14:35 (15 minutes)

Rate and occupancy studies, detector readout constraints, trigger considerations, and similar

Presenters: KOULOURIS, Aimilianos (CERN); FRANCHELLUCCI, Stefano (Universite de Geneve (CH))

Session Classification: Software and detector concepts

Contribution ID: 13

Type: **not specified**

Detector concept inputs: CLD

Thursday, 6 November 2025 15:00 (15 minutes)

Rate and occupancy studies, detector readout constraints, trigger considerations, and similar

Presenter: PARAMONOV, Alexander (Argonne National Laboratory (US))

Session Classification: Software and detector concepts

Contribution ID: 14

Type: **not specified**

Detector concept inputs: IDEA

Thursday, 6 November 2025 15:25 (15 minutes)

Rate and occupancy studies, detector readout constraints, trigger considerations, and similar

Presenter: CAPRIOTTI, Lorenzo (Universita e INFN, Ferrara (IT))

Session Classification: Software and detector concepts

Contribution ID: 15

Type: **not specified**

Detector concept inputs: ILD

Thursday, 6 November 2025 15:50 (15 minutes)

Rate and occupancy studies, detector readout constraints, trigger considerations, and similar

Presenter: BOUDRY, Vincent (Laboratoire Leprince-Ringuet, CNRS/IN2P3, École polytechnique)

Session Classification: Software and detector concepts

Contribution ID: 16

Type: **not specified**

EIC ePIC Streaming DAQ

Thursday, 6 November 2025 16:45 (20 minutes)

Overview of the EIC streaming DAQ design. Description of the scope and technology of the ePIC electronics and DAQ.

Presenter: LANDGRAF, Jeffery

Session Classification: EIC and summary

Contribution ID: 17

Type: **not specified**

Workshop summary

Thursday, 6 November 2025 17:15 (20 minutes)

Brief summary of the workshop

Presenter: SCHRAMM, Steven (Universite de Geneve (CH))

Session Classification: EIC and summary