FCC Software Hands-on Tutorial

Welcome and Introduction

Oct 19, 2022
G Ganis, CERN
C Helsens, KIT

Purpose of the tutorials

- Introduce the participants to the FCC software through an hands on tutorial
- Focus on how to use the existing software to perform the most common analysis workflows and some development workflows
- The topics have been chosen following the results of a survey proposed to better fit the needs and desires of the participants

Structure of the event

Welcome and introduction	*Clement Helsens et al.*
30/7-018 - Kjell Johnsen Auditorium, CERN	14:00 - 14:10
Overview of the FCC software	*Clement Helsens et al.*
30/7-018 - Kjell Johnsen Auditorium, CERN	14:10 - 14:40
Overview of tutorial #1: Generating events	
30/7-018 - Kjell Johnsen Auditorium, CERN	14:40 - 14:48
Overview of tutorial #2: Vertexing in FCC Analysis	
30/7-018 - Kjell Johnsen Auditorium, CERN	14:48 - 14:56
Overview of tutorial #3: Visualisation	
30/7-018 - Kjell Johnsen Auditorium, CERN	14:56 - 15:04
Overview of tutorial #4: Changing geometry in DD4hep	
30/7-018 - Kjell Johnsen Auditorium, CERN	15:04 - 15:12
Overview of tutorial #5: Simulation of the LAr calorimeter	
30/7-018 - Kjell Johnsen Auditorium, CERN	15:12 - 15:20
Overview of tutorial #6: run fccanalysis and weaver inference for gamma/pi0 separation	
30/7-018 - Kjell Johnsen Auditorium, CERN	15:20 - 15:28
Break (coffee ...)	
30/7-018 - Kjell Johnsen Auditorium, CERN	15:30 - 16:00
Reviewing the basics	*All*
Wednesday 19/10 Afternoon	
30/7-018 - Kjell Johnsen Auditorium, CERN	16:00 - 18:00

Thursday 21/10 Morning

09:00	**Tutorial 1: Generation events - Introduction**	*Gerardo Ganis*
	30/7-018 - Kjell Johnsen Auditorium, CERN	09:00 - 09:15
	Tutorial 1: Generation events - Hands-on	
10:00		
	30/7-018 - Kjell Johnsen Auditorium, CERN	09:15 - 10:30
	Break (coffee ...)	
	30/7-018 - Kjell Johnsen Auditorium, CERN	10:30 - 11:00
11:00	**Tutorial 2: Vertexing in FCCAnalysis - Introduction**	*Emmanuel Francois Perez (TBC)*
	30/7-018 - Kjell Johnsen Auditorium, CERN	11:00 - 11:15
	Tutorial 2: Vertexing in FCCAnalysis - Hands-on	
12:00		
	30/7-018 - Kjell Johnsen Auditorium, CERN	11:15 - 12:30
	Lunch break	

Structure of the event

Tutorial 3: Visualisation - Introduction	Juraj Smiesko
30/7-018 - Kjell Johnsen Auditorium, CERN	14:00 - 14:15

Tutorial 3: Visualisation - Hands-on	
30/7-018 - Kjell Johnsen Auditorium, CERN	14:15 - 15:30

Break (coffee ...)	
30/7-018 - Kjell Johnsen Auditorium, CERN	15:30 - 16:00

Tutorial 4: Changing geometry in DD4hep - Introduction	Andre Sailer
30/7-018 - Kjell Johnsen Auditorium, CERN	16:00 - 16:15

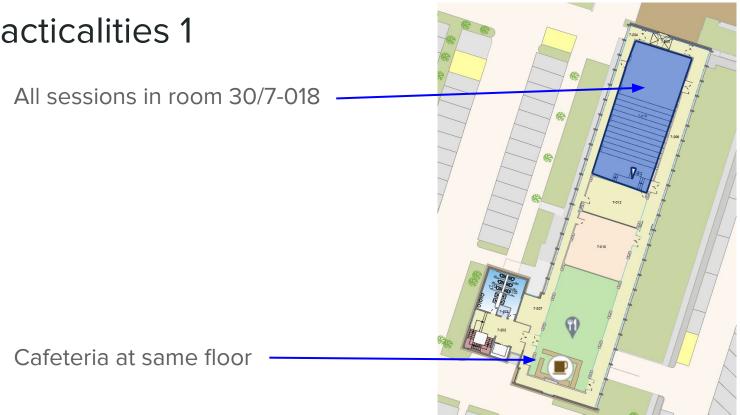| Tutorial 4: Changing geometry in DD4hep - Hands-on	
30/7-018 - Kjell Johnsen Auditorium, CERN	16:15 - 17:30

Thursday 20/10 Afternoon

Friday 21/10 Morning

Tutorial 5: Simulation of the LAr calorimeter - Introduction	Brieuc Francois
30/7-018 - Kjell Johnsen Auditorium, CERN	09:00 - 09:15

Tutorial 5: Simulation of the LAr calorimeter - Hands-on	
30/7-018 - Kjell Johnsen Auditorium, CERN	09:15 - 10:30

Break (coffee ...)	
30/7-018 - Kjell Johnsen Auditorium, CERN	10:30 - 11:00

Tutorial 6: Weaver inference for gamma/pi0 separation - Introduction	Laurent Forthomme et al.
30/7-018 - Kjell Johnsen Auditorium, CERN	11:00 - 11:15

Tutorial 6: Weaver inference for gamma/pi0 separation - Hands-on	
30/7-018 - Kjell Johnsen Auditorium, CERN	11:15 - 12:30

Practicalities 1

- All sessions in room 30/7-018

- Cafeteria at same floor

Practicalities 2

- ZOOM **not** available

  - We will organize fully online tutorials later on

- We did **not** print badges

  - Please make your CERN {permanent, temporary} badge visible so that the others know who you are

Practicalities 3

- Dedicated [Mattermost channel](https://mattermost.web.cern.ch/signup_user_complete/?id=ea9j3u7pb3refrx4y57d8qhw9y) to discuss
  - https://mattermost.web.cern.ch/signup_user_complete/?id=ea9j3u7pb3refrx4y57d8qhw9y
- Computing resources
  - FCC Software is still rather CERN centric (CERN account required for real activities) and mono-OS (CentOS7)
  - Exercises and demos prepared trying to use as much as possible 'public' resources
  - Laptops connected at CERN can use a Specialized CernVM Virtual Machine
  - Tutorials can also be run on [SWAN](#) within a web browser
  - More details during the basics session this afternoon (V Volkl)

Workshop Dinner at Cafe de la Place

- **Thursday 20 October at 19h-19h30**
- People who have not signed up can still do it until the coffee break
    - By mail or voice
- Tram 18 stop 'Meyrin Village'

Tram stop
Meyrin Village