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DPG General Meeting Introduction

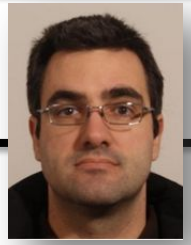
March 14, 2018

F. Prino, C. Zampolli

DPG Coordination staff

Chiara Zampolli
Francesco Prino

DPG Coordination




PROC
Processing

Catalin-Lucian Ristea (*)
Michael Weber

detectors

QAT
QA and Tools

detectors

Marie Germain, E. Botta
Jacek Otwinowski (*)

PWGs

AOT
Analysis Objects and Tools

detectors

Catalin-Lucian Ristea (*),
Rafael Derradi de Sousa, Andrea Dainese & Andrea Rossi (*)

PWGs

(*) Institutional responsibility

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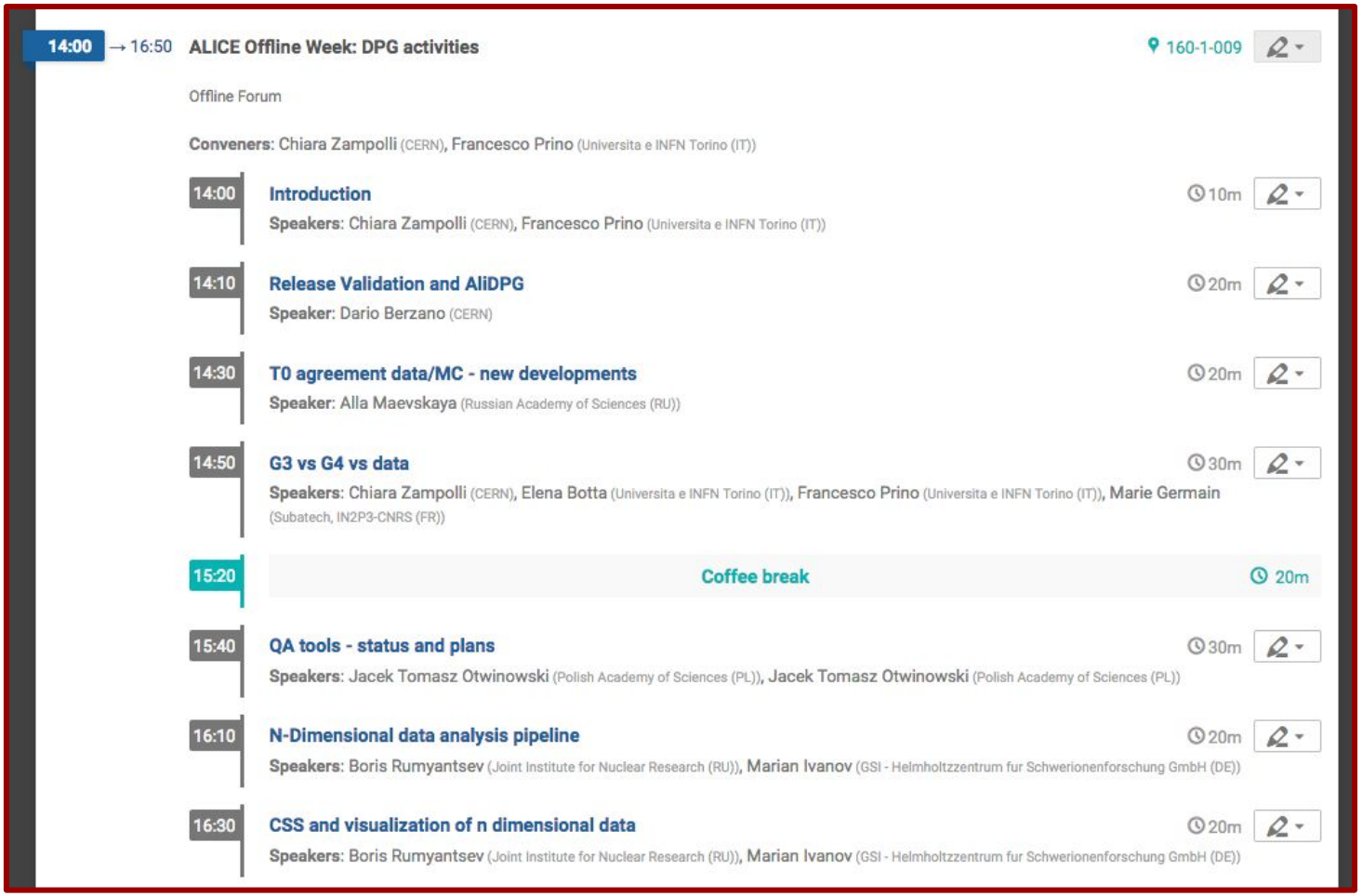
Today's agenda

[Indico agenda](#)



14:00 → 16:50 **ALICE Offline Week: DPG activities** — 160-1-009

Offline Forum

Conveners: Chiara Zampolli (CERN), Francesco Prino (Universita e INFN Torino (IT))

14:00	**Introduction** **Speakers**: Chiara Zampolli (CERN), Francesco Prino (Universita e INFN Torino (IT))	10m
14:10	**Release Validation and AliDPG** **Speaker**: Dario Berzano (CERN)	20m
14:30	**T0 agreement data/MC - new developments** **Speaker**: Alla Maevskaya (Russian Academy of Sciences (RU))	20m
14:50	**G3 vs G4 vs data** **Speakers**: Chiara Zampolli (CERN), Elena Botta (Universita e INFN Torino (IT)), Francesco Prino (Universita e INFN Torino (IT)), Marie Germain (Subatech, IN2P3-CNRS (FR))	30m
15:20	**Coffee break**	20m
15:40	**QA tools - status and plans** **Speakers**: Jacek Tomasz Otwinowski (Polish Academy of Sciences (PL)), Jacek Tomasz Otwinowski (Polish Academy of Sciences (PL))	30m
16:10	**N-Dimensional data analysis pipeline** **Speakers**: Boris Rumyantsev (Joint Institute for Nuclear Research (RU)), Marian Ivanov (GSI - Helmholtzzentrum fur Schwerionenforschung GmbH (DE))	20m
16:30	**CSS and visualization of n dimensional data** **Speakers**: Boris Rumyantsev (Joint Institute for Nuclear Research (RU)), Marian Ivanov (GSI - Helmholtzzentrum fur Schwerionenforschung GmbH (DE))	20m

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Data reconstruction status

Table

PERIOD	QA and run lists
LHC17c	
LHC17d	Won't do
LHC17e	
LHC17f	
LHC17g	
LHC17h	Ongoing
LHC17i	
LHC17j	
LHC17k	Ongoing
LHC17l	
LHC17m	
LHC17n	
LHC17o	
LHC17p	
LHC17q	
LHC17r	

PERIOD	QA and run lists
LHC16d	
LHC16e	
LHC16f	
LHC16g	
LHC16h	
LHC16i	
LHC16j	
LHC16k	
LHC16l	
LHC16m	Won't do
LHC16n	Won't do
LHC16o	
LHC16p	
LHC16q	
LHC16r	
LHC16s	
LHC16t	

PERIOD	QA and run lists
LHC15f	N/A (old production)
LHC15g	Won't do
LHC15h	
LHC15i	
LHC15j	Ongoing
LHC15k	Won't do
LHC15l	
LHC15m	Won't do
LHC15n	
LHC15o	

2015, 2016, 2017 reconstructions DONE!

Data reconstruction status

Table

PERIOD	QA and run lists
LHC17c	
LHC17d	Won't do
LHC17q	
LHC17r	

PERIOD	QA and run lists
LHC16d	
LHC16q	
LHC16r	
LHC16s	
LHC16t	

PERIOD	QA and run lists
LHC15f	N/A (old production)

Don't try to guess who is who… :-)

2015, 2016, 2017 reconstructions DONE!

Impressive work of all the people involved (DPG, BTG, detectors)

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Monte Carlo productions

Table

PWG PRODUCTIONS BEING PROCESSED									
PWG	GENERATOR / DESCRIPTION	PRODUCTION NAME	JIRA TICKET	COLLISION SYSTEM	ANCHOR PERIOD	ALIROOT	EVENTS/ SAMPLING	STATUS	COMMENT
COMMON	STARLIGHT		ALIROOT-7579	XeXe 5.44 TeV	LHC17n			SUSPENDED	
CF	AMPT	*LHC17i2*	ALIROOT-7338	Pb-Pb 5 TeV	LHC15o	v5-08-13o, v5-09-19		Final QA	QM18
CF	Therminator2	*LHC18b2[a,b]*	ALIROOT-7679	Pb-Pb 5 TeV	LHC15o			SOFT. UPDATE	
DQ	HIJING+J/psi	*LHC17k3,LHC17k3b*	ALIROOT-7593	XeXe 5.44 TeV	LHC17n	v5-09-18		RUNNING	
DQ	HIJING+J/psi->mumu tuned shapes	*LHC18c7*	ALIROOT-7724	XeXe 5.44 TeV	LHC17n	v5-09-18		Final QA	QM18
DQ	HIJING+ee	*LHC18b5[a,b]*	ALIROOT-7647	Pb-Pb 5 TeV	LHC15o	v5-08-13q-p9		Running 10%	QM18
DQ	PYTHIA + J/psi	*LHC18b1[a,b]*	ALIROOT-7416	pp 13 TeV	LHC15*, LHC17*	v5-09-18		Final QA	
DQ	PYTHIA with J/psi->ee	*LHC18a11*	ALIROOT-7667	pp 5 TeV	LHC17p,q	v5-09-20	50M	Final QA	QM18
DQ	J/psi,Upsilon->mumu	*LHC18c5[a,b]*	ALIROOT-7694	pp 5 TeV	LHC17p,q	v5-09-20b	15M	Final QA	QM18
DQ	EPOS+J/psi->ee	*LHC18b3*	ALIROOT-7666	p-Pb 8 TeV	LHC16r,s	v5-08-13zc-cookdedx		Final QA	QM18
DQ	Upsilon->mumu	*LHC18b13[a,b]*	ALIROOT-7696	p-Pb 8 TeV	LHC16r,s	v5-09-14, v5-09-20b		RUNNING	QM18
GA	PYTHIA GJ+JJ triggered	*LHC17i3* (6 cycles)*	ALIROOT-7269	pp 13 TeV	LHC16d,e,f, g,h,i,j,k,l,o,p	v5-09-12		Final QA	
GA	PYTHIA+JJ	*LHC18b8*	ALIROOT-7689	pp 5 TeV	LHC17p,q	v5-09-20		10% QA	QM18
GA	PYTHIA+GJ	*LHC18b10[a,b]*	ALIROOT-7692	pp 5 TeV	LHC17p,q	v5-09-20		SETUP	
GA	DPMJET GJ+JJ triggered	*LHC17g6* (9 cycles)*	ALIROOT-7271	p-Pb 5+8 TeV	LHC16r,s LHC13d,e,f	v5-08-13zc-cookdedx		Final QA	
GA	EPOS+JJ	*LHC18b9[b,c]*	ALIROOT-7690	p-Pb 8 TeV	LHC16r,s			SETUP	QM18
GA	HIJING+GJ	*LHC18b11[a,b,c]*	ALIROOT-7693	Pb-Pb 5 TeV	LHC15o	v5-08-13q-p5	0.6M	RUNNING	
HF	PYTHIA with HFE,D2H	*LHC18a4[a,b]*	ALIROOT-7659	pp 5 TeV	LHC17p,q	v5-09-20b		Final QA	QM18
LF	EPOS+resonances	*LHC17i7*	ALIROOT-7609	p-Pb 8 TeV	LHC16r,s	v5-08-13zb-cookdedx		SOFT. UPDATI	QM18
LF	HIJING+phi,K*	*LHC17j8[a,b,c]*	ALIROOT-7529	Pb-Pb 5 TeV	LHC15o	v5-08-13o	500k	Running 10%	QM18
LF	PYTHIA+Nuclei	*LHC18a2a,b,c*	ALIROOT-7643	pp 13 TeV	LHC15f, LHC15i, LHC16*, LHC17*			Running 10%	QM18
LF	PYTHIA+Resonances		ALIROOT-7708	pp 13 TeV	LHC15f, LHC15i, LHC16*, LHC17*			SETUP	QM18
LF	PYTHIA+Nuclei and resonances	*LHC18a5[a,b]*	ALIROOT-7649	pp 5 TeV	LHC17p,q LHC15n			SOFT. UPDATI	QM18
LF	PYTHIA+resonances	*LHC18???*	ALIROOT-7718	pp 5 TeV	LHC17p,q LHC15n			SOFT. UPDATI	QM18
LF	HIJING+omega	*LHC18b4*	ALIROOT-7680	XeXe 5.44 TeV	LHC17n	v5-09-18		Final QA	QM18
UD	MC for diffractive	*LHC17h7a,b*	ALIROOT-7432	pp 13 TeV	LHC17j	v5-09-13		Final QA	
UD	UPC, STARLIGHT	*LHC18b14*	ALIROOT-7699	Pb-Pb 5 TeV	LHC15o	v5-09-20	18 x 5M	RUNNING	

Continuous activity both for General Purpose and PWG-specific productions

- **Testing, integration, validation**

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Miscellaneous news on code

- Changes in AliRoot and AliPhysics to set automatically the anchoring data pass for PID initialization
- Changes committed in AliRoot in order to be able to apply the whole set of cuts defined in AliESDtrackCuts::AcceptTrack() on an AOD track, after converting it to ESD track
- Changes committed in AliRoot in order to be able to select the events to reconstruct according to the logic OR of matches of substrings in the fired trigger classes ("Contain" option)
- Changes committed in AliRoot/AliPhysics to allow for data processing (CPass, PPass, QA, AOD, muon_calo, cosmics) with ROOT6
  - MC: last checks ongoing
- From v5-09-21: bug fix in AliITStrackerMI → in order to preserve data vs MC compatibility, v5-09-24 allows to "switch off" the bug fix
- ...and many more...

NB: work done very often in collaboration with the BTG

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Miscellaneous news on QA

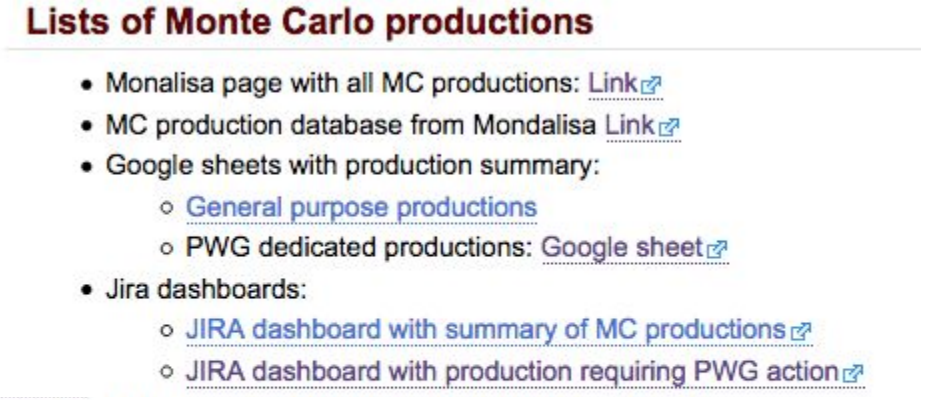
- Dedicated QA train that runs on AODs created during data and MC processing
  - Post-processing at run level done, under validation, then period-level post-processing
  - Output will automatically populate
  - Will be accessible at: http://aliqaaod.web.cern.ch/aliqaaod/
- Analysis QA on ESDs and AODs
  - Run regularly by service task students (R. Nayak, A. Sheikh - thanks!)
  - Several wagons
  - Results published in the DPG TWiki: https://twiki.cern.ch/twiki/bin/view/ALICE/AliceDPG#Analysis_QA

News on TWiki pages

- From the main page
  - Links to data processing tables
  - Links to useful pages with information on Monte Carlo productions

Raw data production

- Weekly news
- Data processing summary tables
  - 2017 samples
  - 2016 samples
  - 2015 samples
- Summary of reconstructed data taking periods
- List of Aliroot tags used in production
- Information needed when setting up data processing (period
- Available splines



Lists of Monte Carlo productions

- Monalisa page with all MC productions: Link
- MC production database from Mondalisa Link
- Google sheets with production summary:
  - General purpose productions
  - PWG dedicated productions: Google sheet
- Jira dashboards:
  - JIRA dashboard with summary of MC productions
  - JIRA dashboard with production requiring PWG action

- Analysis QA

Analysis QA

- Lego trains for analysis QA
- Results: pp 2017
- Results: Xe-Xe 2017
- LHC15o

News on TWiki pages

- New pages from AOT-events and AOT-tracks with guidelines to extract information on events and tracks

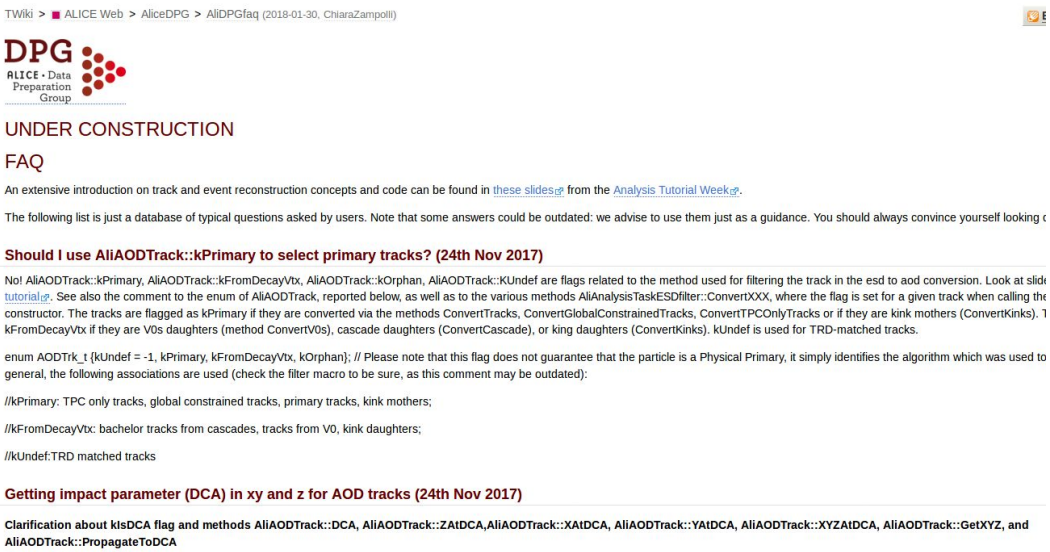
Event selection and properties (AOT events)

- How to extract event information from ESDs and AODs

Track selection and properties (AOT tracks)

- How to extract track information from ESDs and AODs

- Under construction: FAQ page for AOT-tracks



TWiki > ALICE Web > AliceDPG > AliDPGfaq (2018-01-30, ChiaraZampolli)

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UNDER CONSTRUCTION

FAQ

An extensive introduction on track and event reconstruction concepts and code can be found in these slides from the Analysis Tutorial Week.

The following list is just a database of typical questions asked by users. Note that some answers could be outdated: we advise to use them just as a guidance. You should always convince yourself looking

Should I use AliAODTrack::kPrimary to select primary tracks? (24th Nov 2017)

No! AliAODTrack::kPrimary, AliAODTrack::kFromDecayVtx, AliAODTrack::kOrphan, AliAODTrack::kUndef are flags related to the method used for filtering the track in the esd to aod conversion. Look at slid tutorial. See also the comment to the enum of AliAODTrack, reported below, as well as to the various methods AliAnalysisTaskESDfilter::ConvertXXX, where the flag is set for a given track when calling the constructor. The tracks are flagged as kPrimary if they are converted via the methods ConvertTracks, ConvertGlobalConstrainedTracks, ConvertTPCOnlyTracks or if they are kink mothers (ConvertKinks). kFromDecayVtx if they are V0s daughters (method ConvertV0s), cascade daughters (ConvertCascade), or king daughters (ConvertKinks). kUndef is used for TRD-matched tracks.

enum AODTrk_t {kUndef = -1, kPrimary, kFromDecayVtx, kOrphan}; // Please note that this flag does not guarantee that the particle is a Physical Primary, it simply identifies the algorithm which was used to general, the following associations are used (check the filter macro to be sure, as this comment may be outdated):

//kPrimary: TPC only tracks, global constrained tracks, primary tracks, kink mothers;

//kFromDecayVtx: bachelor tracks from cascades, tracks from V0, kink daughters;

//kUndef:TRD matched tracks

Getting impact parameter (DCA) in xy and z for AOD tracks (24th Nov 2017)

Clarification about kIsDCA flag and methods AliAODTrack::DCA, AliAODTrack::ZAtDCA,AliAODTrack::XAtDCA, AliAODTrack::YAtDCA, AliAODTrack::XYZAtDCA, AliAODTrack::GetXYZ, and AliAODTrack::PropagateToDCA