PWG2 software status and analyzing real data

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Outline

- PWG2: new code and status of the existing code
  - Code status and feedback from subgroups
  - Coverity status
- PWG2 in the Central Analysis Train
  - First run
  - Train composition
  - Challenges

PWG2/RESONANCES code status

- Coverity convergence, bufixes, warnings
- Provided modifications of the framework in order to fit in the Analysis Train
- Update of the analysis macros and analysis cuts for QM analysis
- Created the "mini" package for small analyses
- New PID macros
- Implement rotational background (for smaller memory footprint analysis)

PWG2/FORWARD code status

- Coverity convergence
- Continue large development in the new codebase (PWG2/FORWARD/analysis2)
- Add centrality handling
- Develop code and corrections for PbPb analysis and pp 7 TeV analysis
- Update flow code with forward detectors
- Update macros for the train setup
- Reorganize analysis scripts

PWG2/SPECTRA code status

- Coverity convergence
- Update in Xi analysis for QM
- Create spectra OADB
- Develop code for multiplicity estimator studies
- Update PID fitting procedures

PWG2/EVCHAR and EBYE code status

PWG2/EVCHAR

- Coverity convergence
- Improve the Glaber fit analysis

PWG2/EBYE

- Coverity convergence
- Add charge fluctuations analysis code

PWG2/FLOW code status

- Coverity and coding conventions convergence
- Improve the Glaber fit analysis
- Develop code for higher harmonics and forward detectros
- Glauber initial eccentricity calculations
- PID developments (Bayesian PID, TOF tender)

Code status (FEMTO/UNICOR)

- Coverity convergence
- Develop two-track merging cut for PbPb analysis
- Rework classes for lower memory footprint
- Start development of reaction plane dependent analysis
- Start TOF PID handling

AliCoverity status (12.07.2011)

- PWG2 has 0 pending coverity reports
- Significant effort from all PWG2 subgroups to address all reports

PWG2 central train

- PWG2 central train has been set up and tested
  - One single macro for most usage cases: ESD/AOD/AOD creation, MC/no MC, pp/PbPb, different collision energies:

`$ALICE_ROOT/PWG2/centraltrain/AnalysisTrainPWG2.C`

  - Four tasks now in the macro (FMD, Femto QA, ITS sa spectra, Hadron PID spectra)
- First "inaguration" fully automated run finished with no problems

PWG2 central train: composition

- Train consists of four wagons at the moment, has not been used yet for "production" analyses
- Resonance package updates awaiting inclusion in the train (require integration with mixing framework)
- So far limited response to a call for more analysis wagons
  - Will be used for femtoscopic analyses (3D, non-id, kaon and proton analysis), which will be a good test for resource requirements
  - Similar for resonance analyses

PWG2 central train: challenges

- Request by some groups to have TTree/TNtuple output. Possible?
- Still need to test the train in "production" conditions. Most demanding (both in memory footprint and CPU) are "pair" analyses: femtoscopy and resonances – will be tested soon.
- Train macro set up to allow running in selected centrality bins. Can the readout process be adapted? Tags? AOD productions grouped in centrality?

The End