FCC build system update

CMake configurations

Main changes:

- Usage of \${ROOT_LIBRARIES}
 - Contains a list of libraries, but not all libraries built by ROOT
 - May include more libraries than needed, or not all libraries needed
 - o It's better to use specific library targets exported by ROOT, like ROOT::RIO
- Usage of include(\${ROOT_USE_FILE})
 - Necessary settings for linking against ROOT, otherwise need to be manually added
- Same libraries linked multiple times
 - Unneeded duplications
- Remove dependency of environment variables for dependencies (papas)
 - Not completely removed for all packages
- Allow tests to run after build phase
 - Rather than after the installation

Modified packages

- podio <u>PR#68</u>
- papas <u>PR#41</u>
- fcc-edm <u>PR#92</u>

LCG 95 - release candidate

- Preparing new version of FCC externals (95.0.0) on top of it.
- Goals:
 - Full support for Centos7 (partial support so far)
 - Add new compiler: gcc8
- Relevant changes on LCG 95:
 - New package: spdlog-1.2.0 (tricktrack uses/provides it?)
 - \circ ROOT: 6.14.08 \rightarrow 6.16.00
 - New package: pythia8-240
 - O DD4hep: 01.08 → 01.10
 - Geant4: will not be part of the LCG Release any more
 - Full list of changes * Not all included on this particular file (Second version of release candidate coming)
- * Having some issues with Podio so far

FCC 95.0.0 - Content

94.0.0		95.0.0
fcc-edm - 0.5.2	\rightarrow	Need new tag *BUT 0.5.3 was incompatible (**)
papas - 1.2.0	\rightarrow	Need new tag
podio - 0.8	\rightarrow	Need new tag *
fcc-physics - 0.2.1	\rightarrow	0.2.1
acts-core - 0.07.01	\rightarrow	0.07.01
heppy - v2.0	\rightarrow	v2.0
geant4 - <none></none>	\rightarrow	10.05 (?)
gaudi - v29r2	\rightarrow	30.5 (?) (v29r2 too old to work with ROOT-v6.16)
tricktrack - 1.0.6	\rightarrow	1.0.7 (?)

Podio

- Repository transferred from Benedikt's account to <u>AIDASoft</u>
- Some changes and new version 0.9
 - Release notes
- HEP-FCC/podio and AIDASoft/podio
 - Two different versions
 - Different changes on each fork
 - Should we move to AIDASoft?
 - Should we at least bring all their changes?