

SPD software news

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SpdRoot update

New functionality in the *development* branch

- New SPD geometry:
geom/ConstructQsl/Geo.C, SimuQsl.C,
tracking/SimuQsl_1.C
- New magnetic field
- MC and Rec hits in ITS and ST
- RS barrel and endcaps — geometry and simulation
- KFparticle package integrated (a candidate for secondary vertex reconstruction)

Many thanks to Artur, Vladimir, Sasha!

Next steps

- ECAL (see talk of A. Maltsev)
- Secondary vertex reconstruction (see talk of V. Andreev)
- RS reconstruction (?)
- New build system
- *What else?*

Deep learning at SPD

- Yesterday we had a software meeting with the LIT group led by G.A.Ososkov. The group works on application of machine learning to the tracking problem in HEP. Applications in BM@N and BESIII already exist.
- We agreed to run a common R&D on the possible use of the machine learning for the online event filter of SPD
- Main difficulty is to avoid or at least to control any bias when applying the neural network to a dataset under varying conditions (noise, miscalibration, detector inefficiency or ageing etc)
- People with good knowledge of physics, maths, Python and C++ are welcome to join this task force! :-)