# Distribution of seed energies and other parameters

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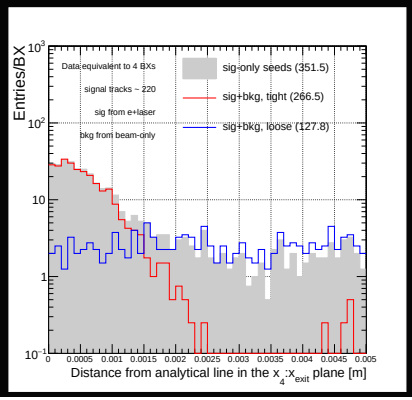
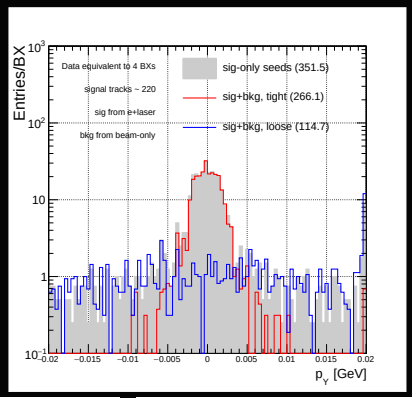
# Introduction:

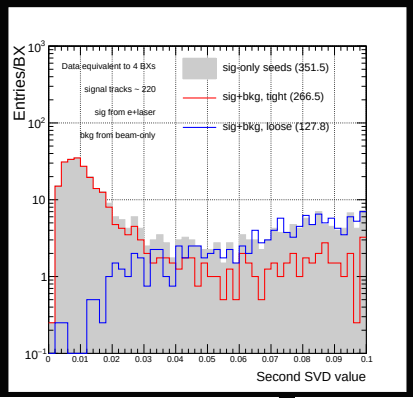
- Done with seeding algorithm + SVD fit
- The tight category is when we require hits in all of the layers as expected.
- The loose category is when we require hits in all of the layers, lower than the expected.
- Sig matched plots are those where the seeding is done only on the signal tracks.
- Considered 4 BX of background from electron beam only setup and 4 BX of hics e+laser setup
- Number of approximate signal tracks: 5 10 20 30 50 80 100 130 150 170 185 200 220

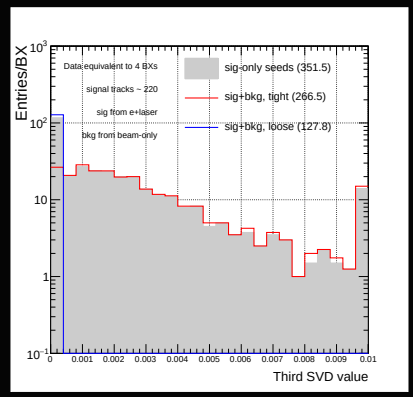
- Loose cuts on seeding algorithm: discussed on slide 6 of the attached pdf

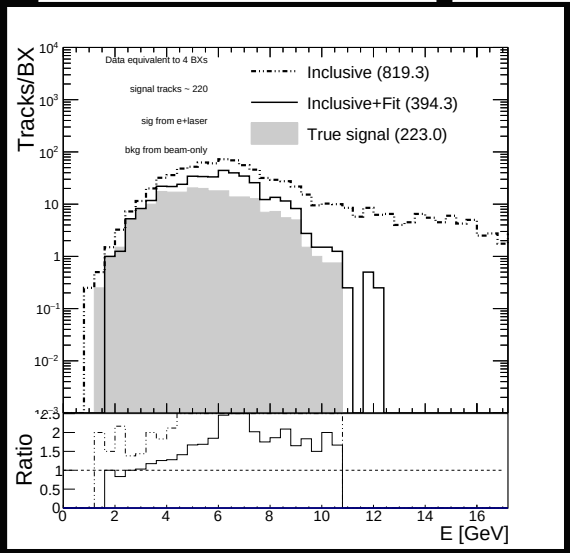
# number of signal tracks per BX: nTracks220

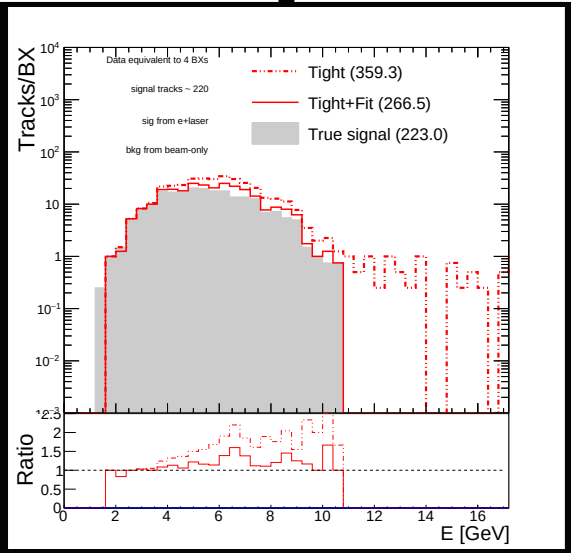


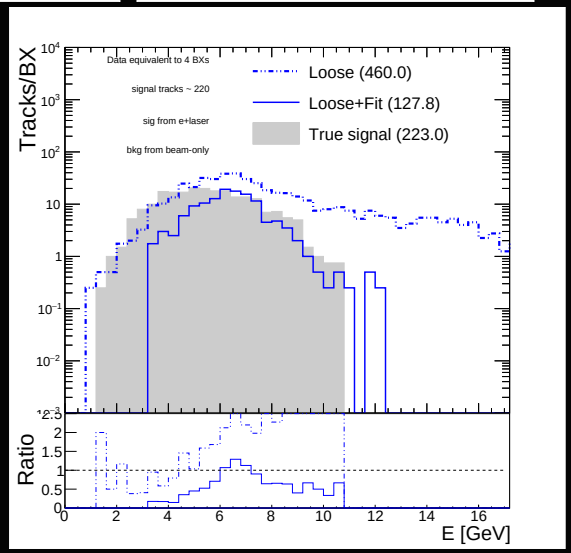



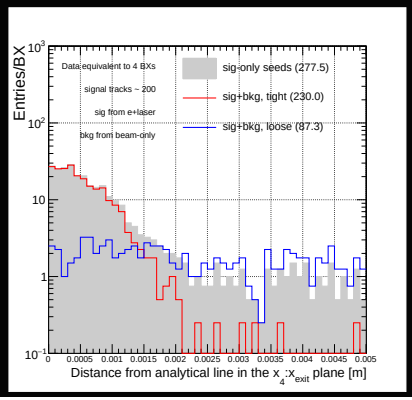



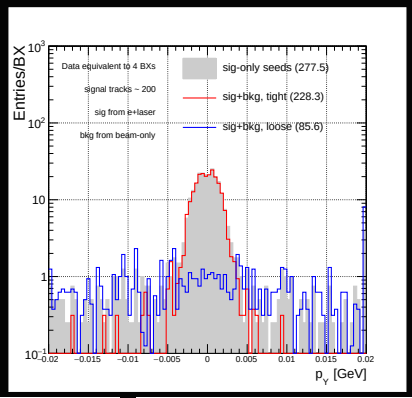



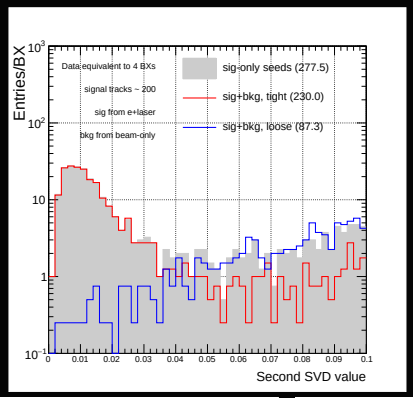



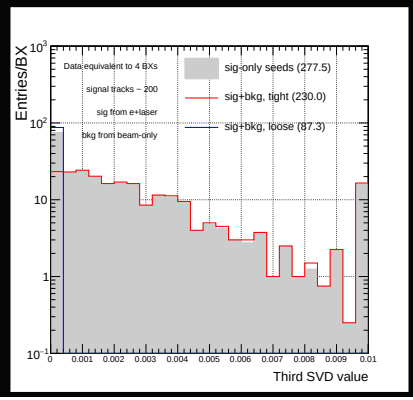



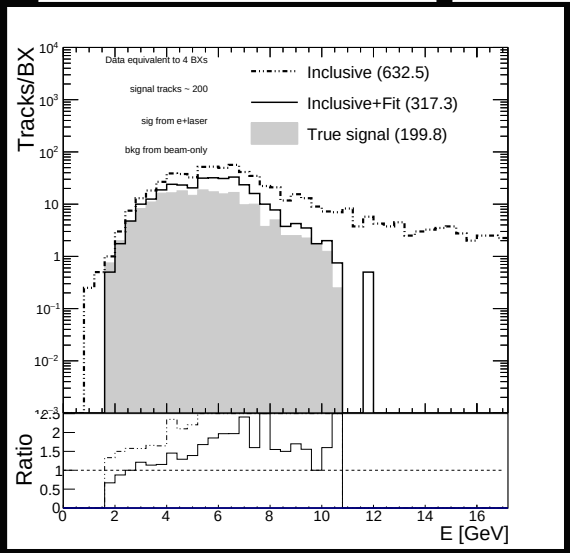
# number of signal tracks per BX: nTracks200

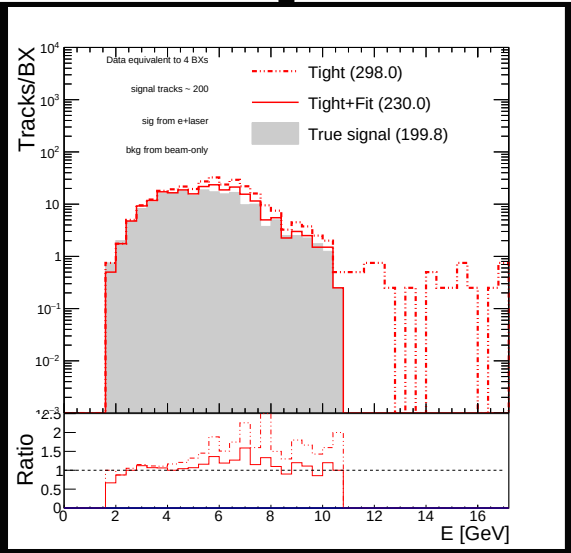


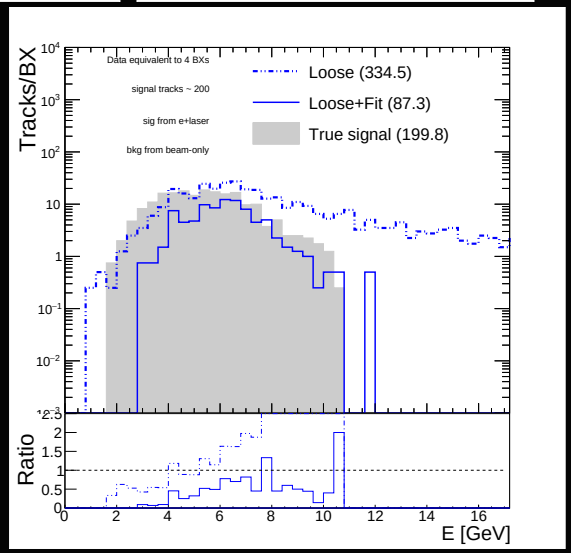



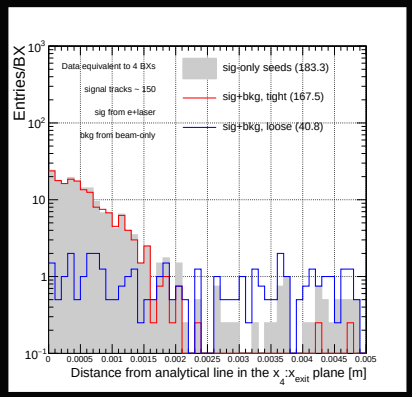



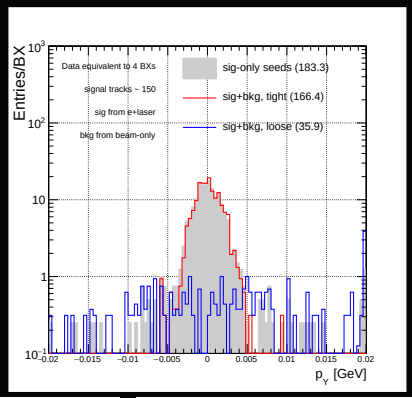



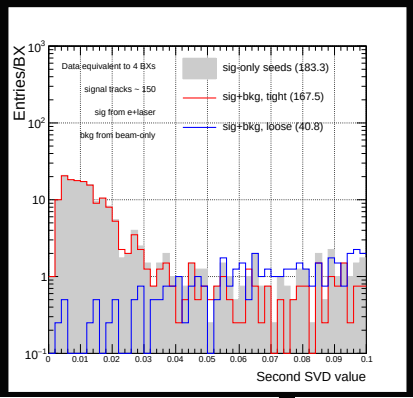



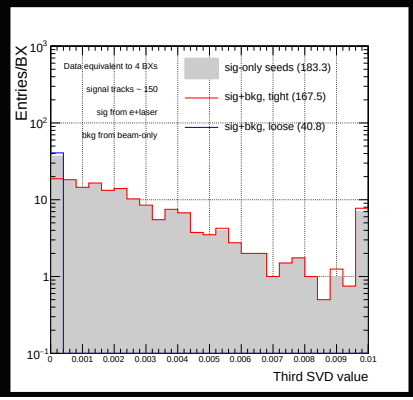



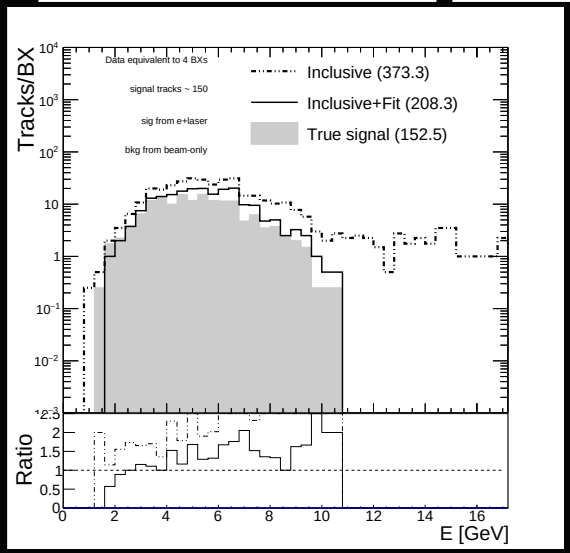
# number of signal tracks per BX: nTracks150

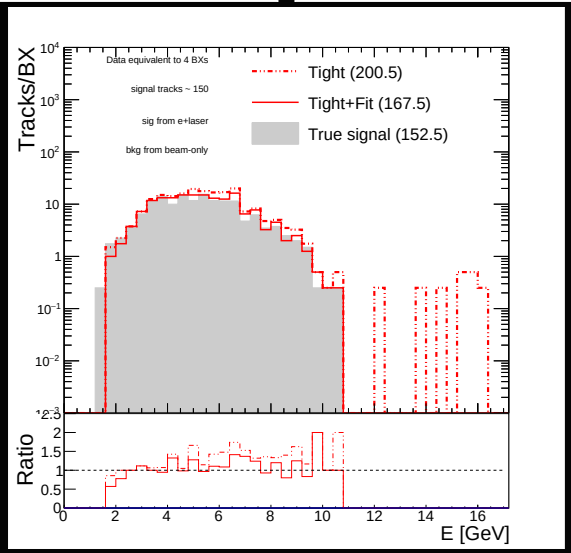


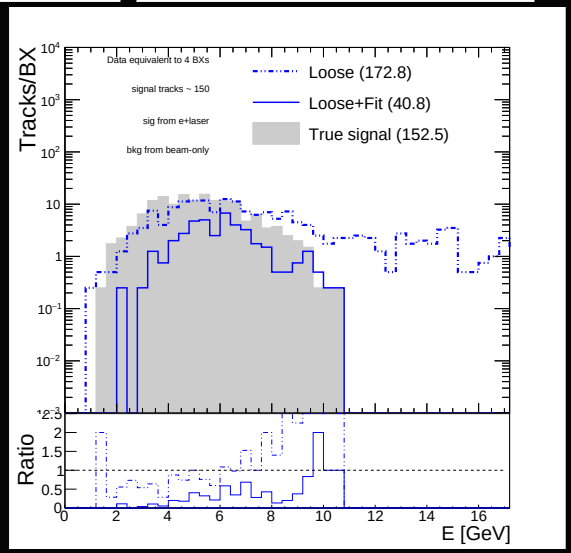



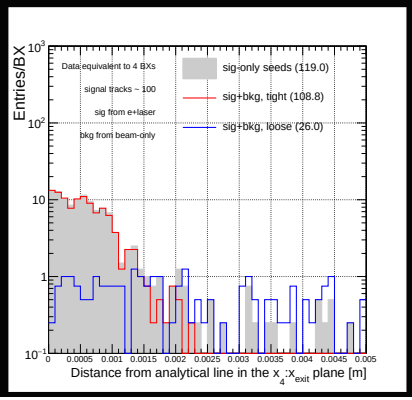



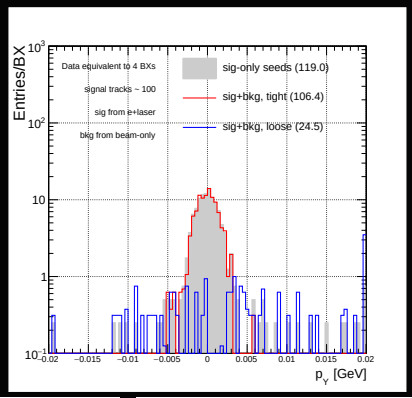



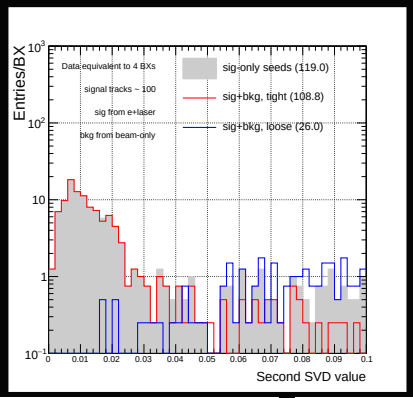



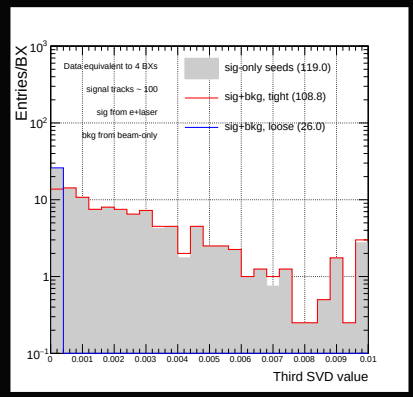



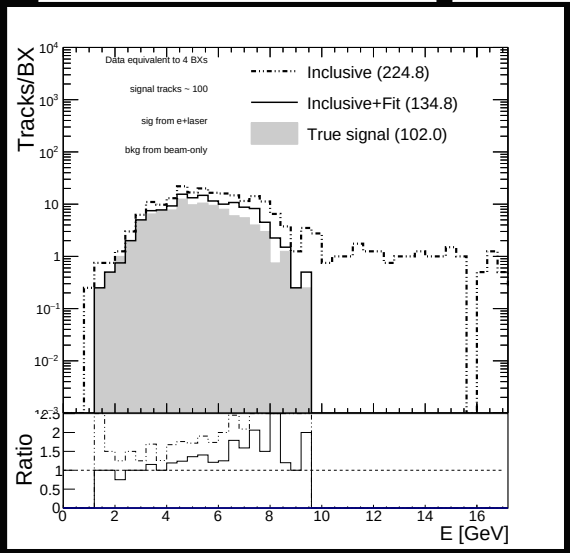
# number of signal tracks per BX: nTracks100

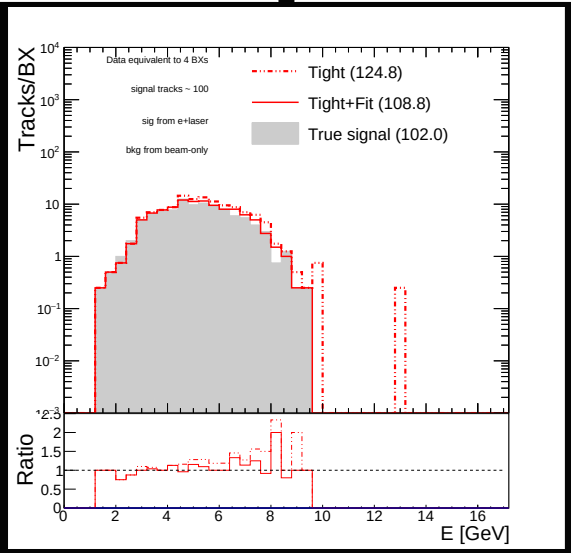


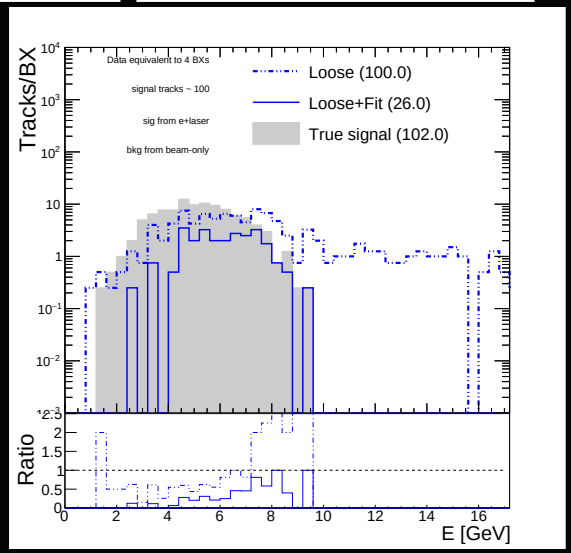



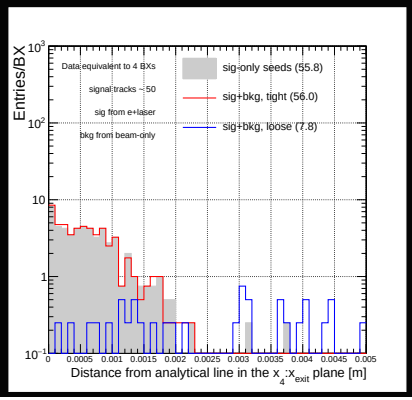



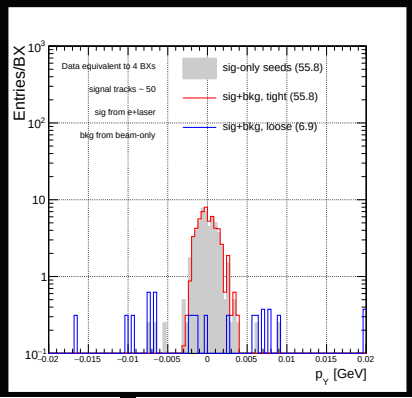



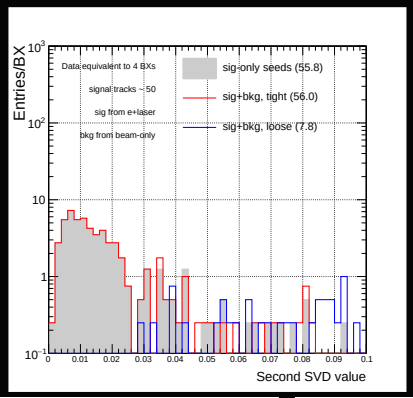



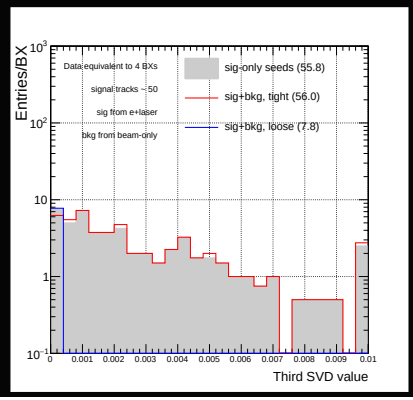



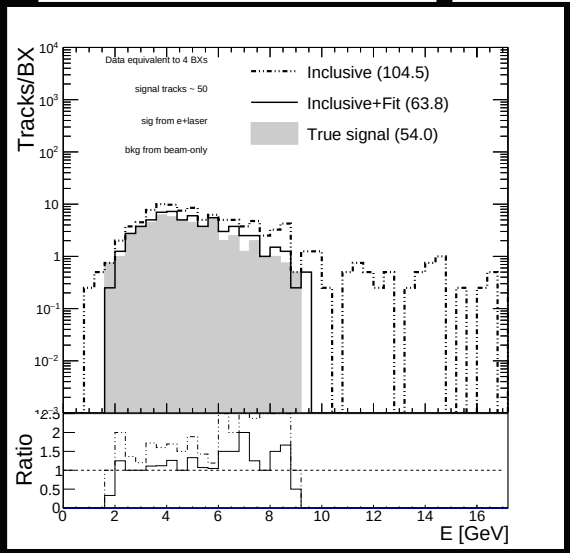
# number of signal tracks per BX: nTracks50

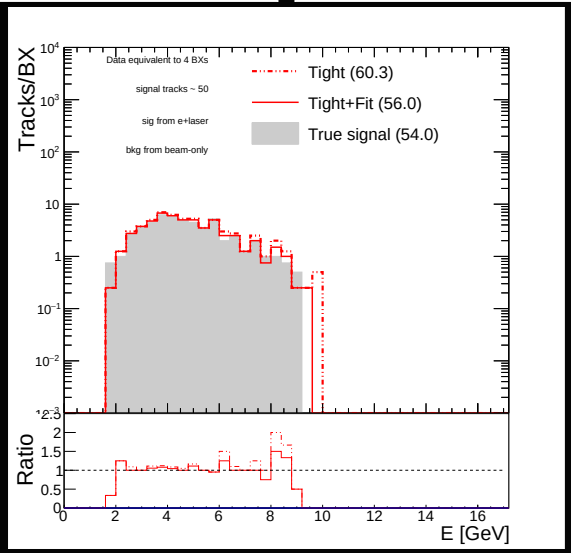


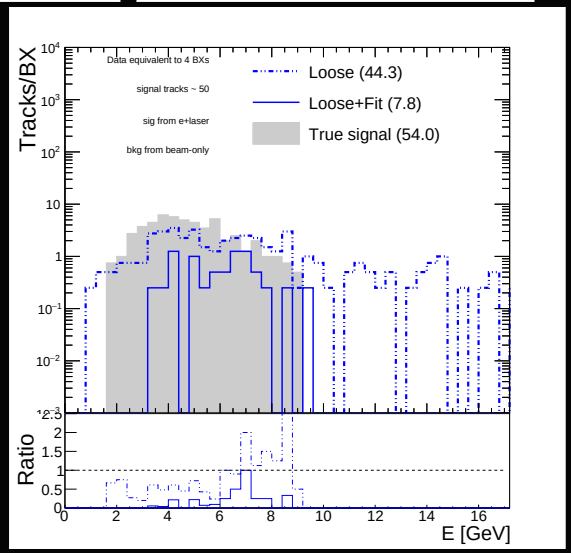



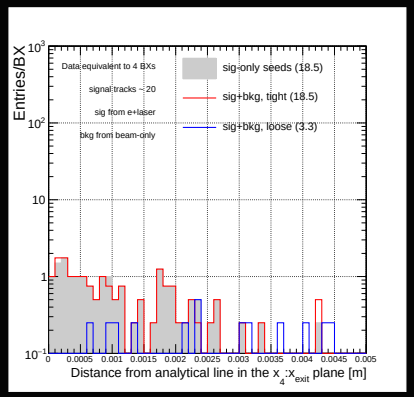



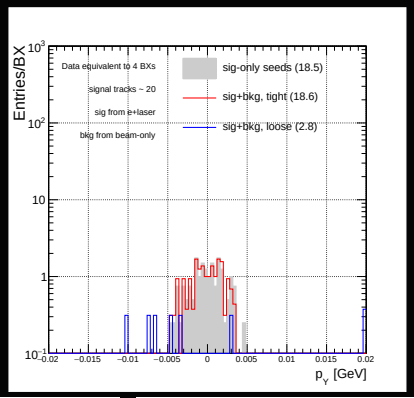



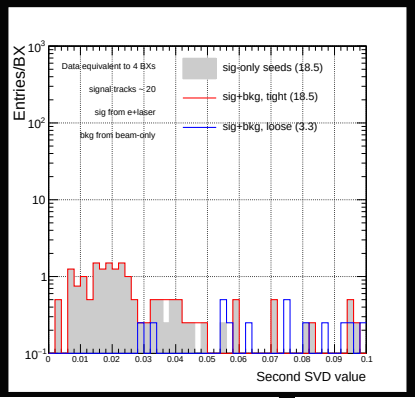



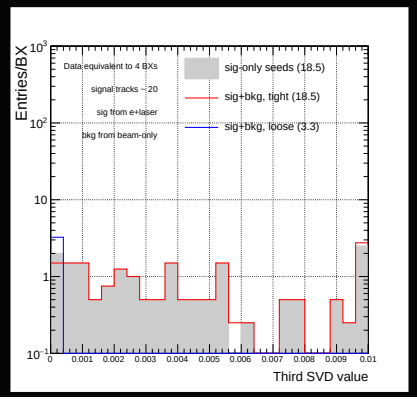



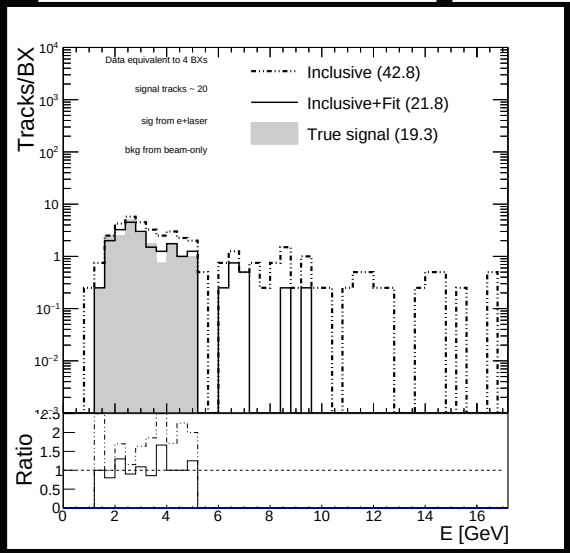
# number of signal tracks per BX: nTracks20

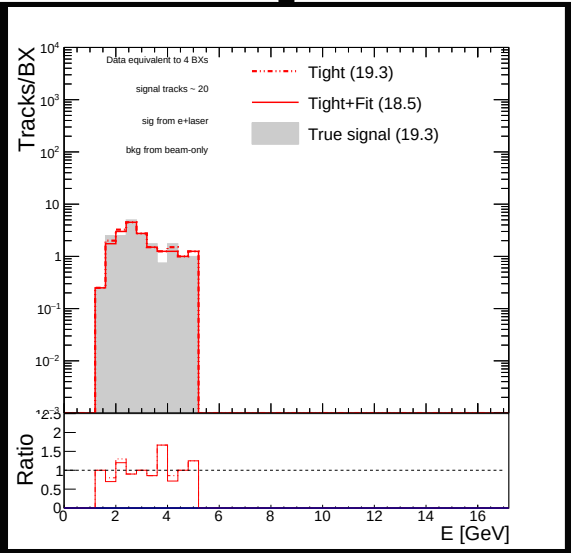


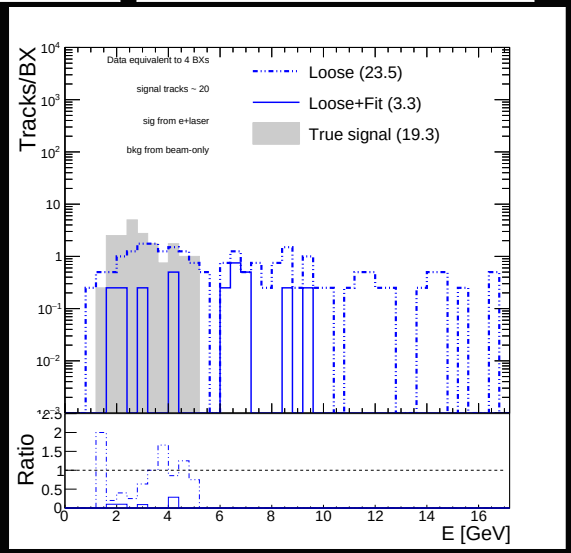



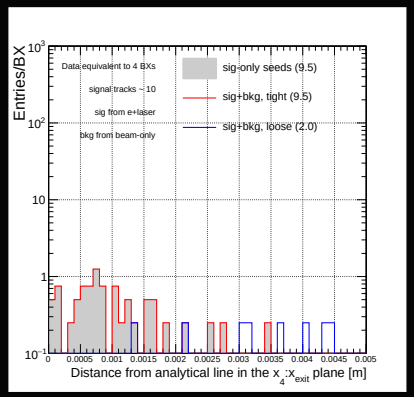



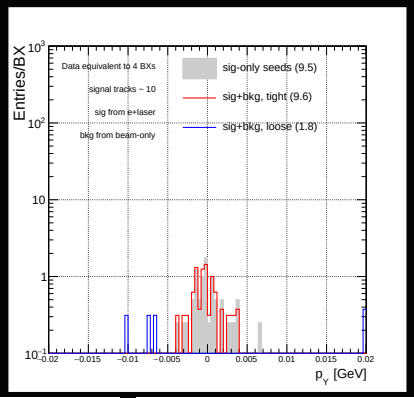



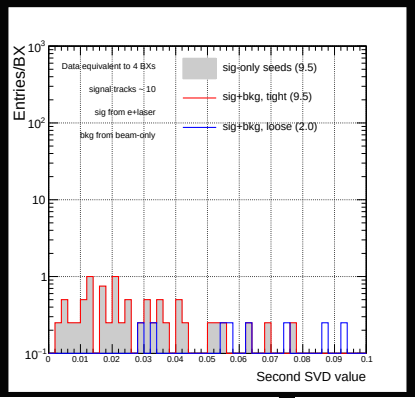



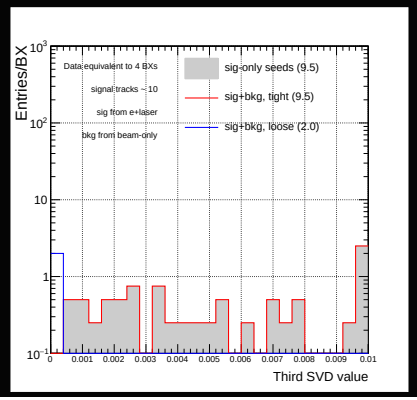



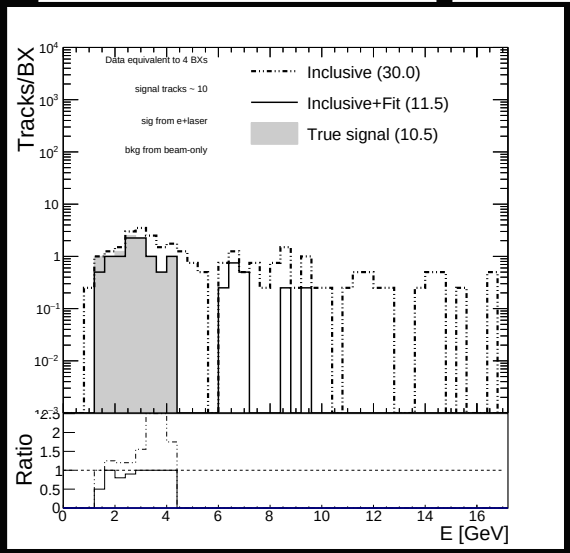
# number of signal tracks per BX: nTracks10

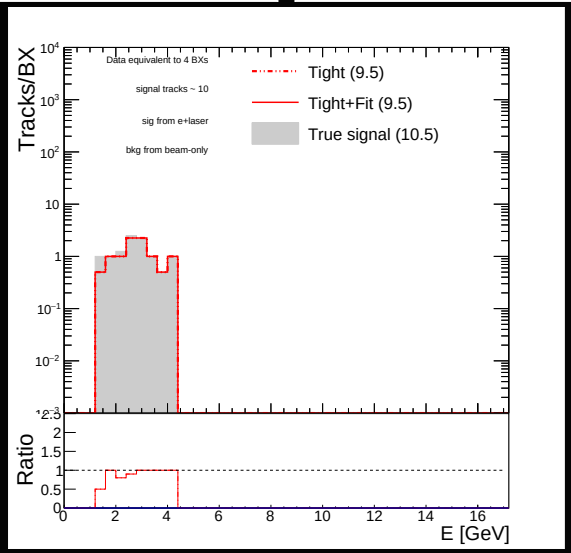


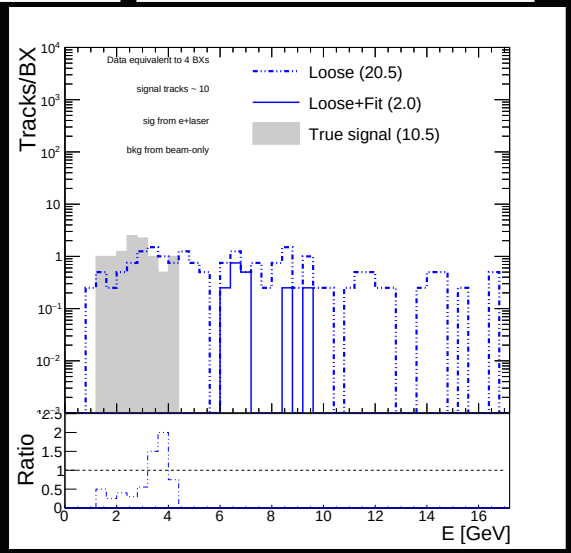



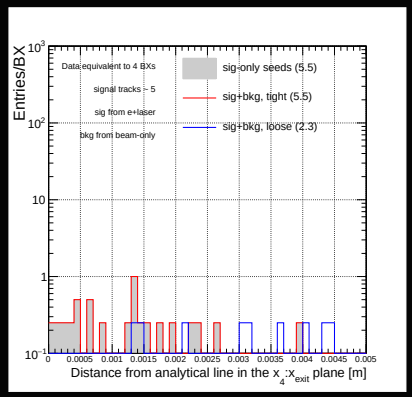



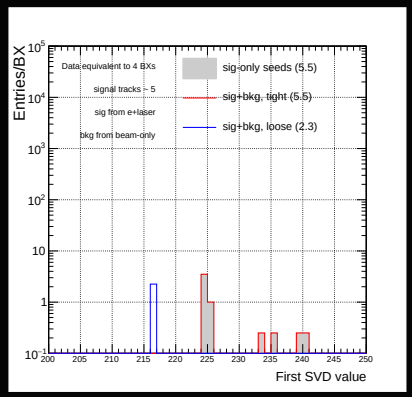



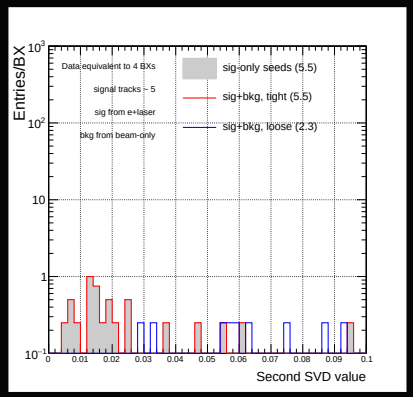



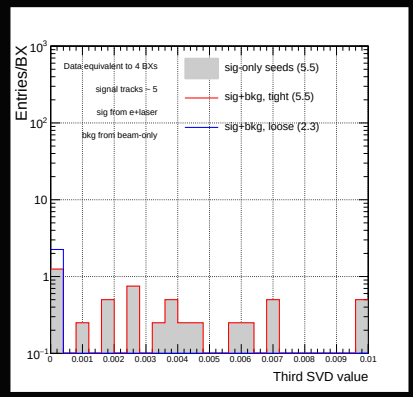



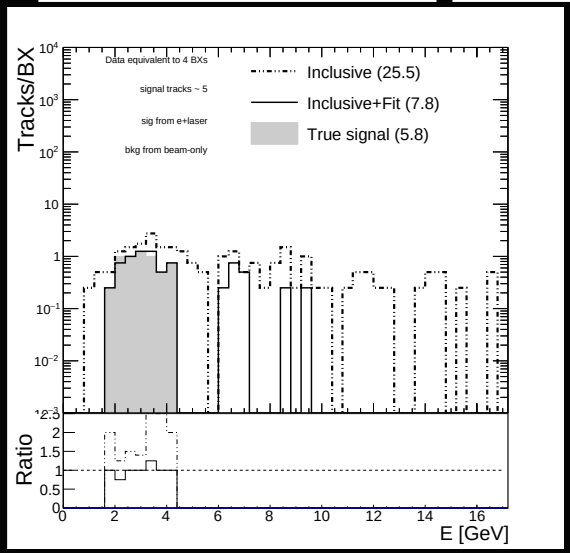
# number of signal tracks per BX: nTracks5

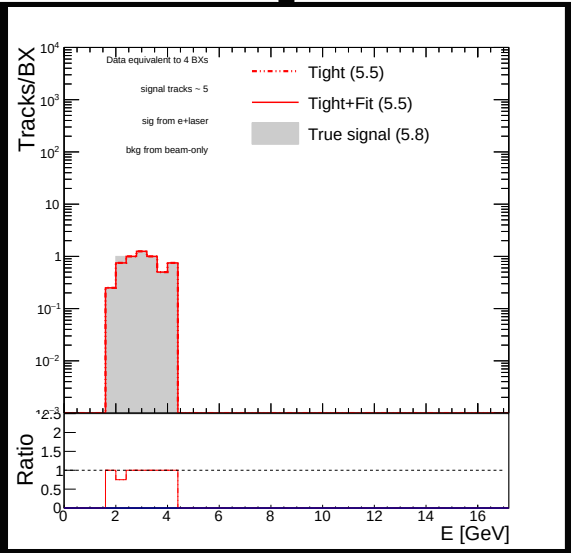


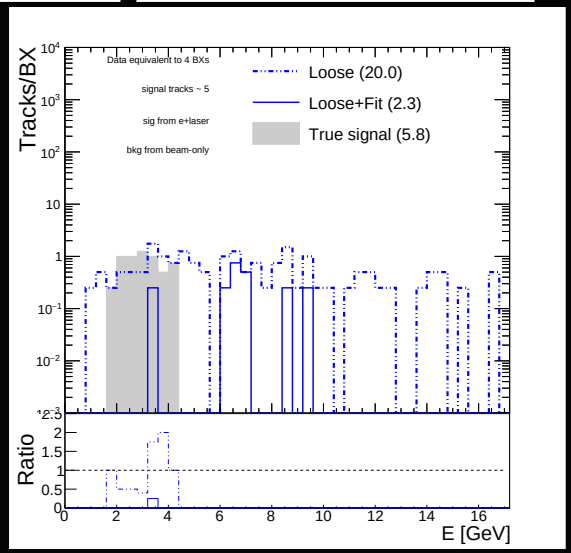



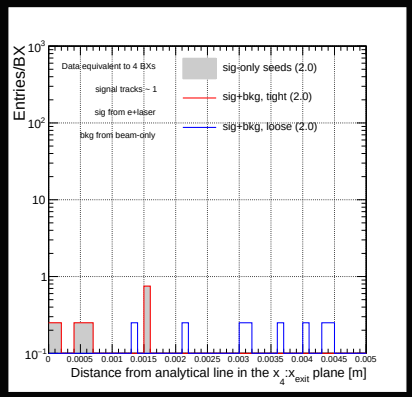



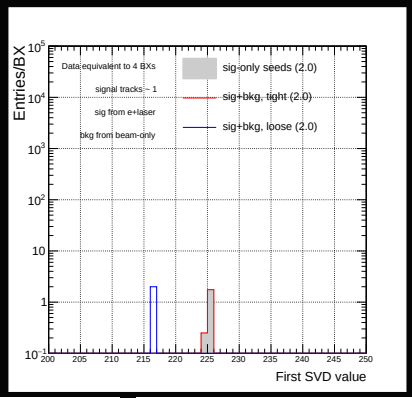



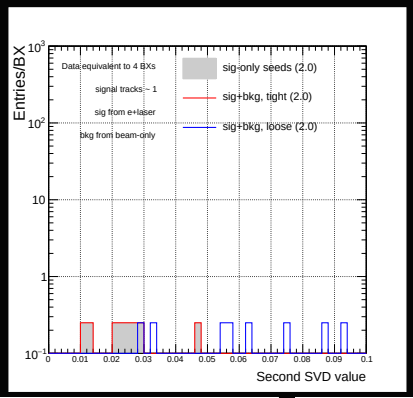



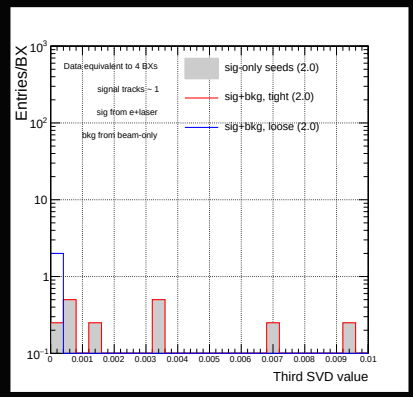



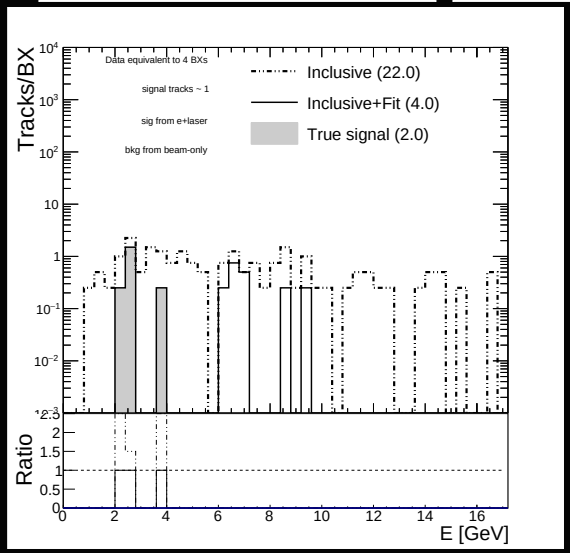
# number of signal tracks per BX: nTracks1

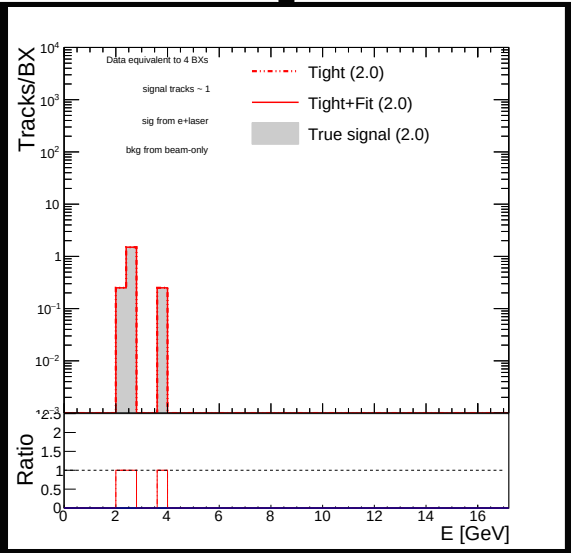


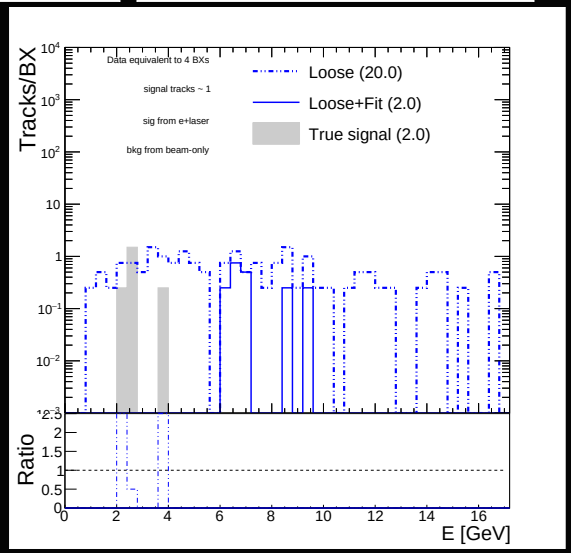



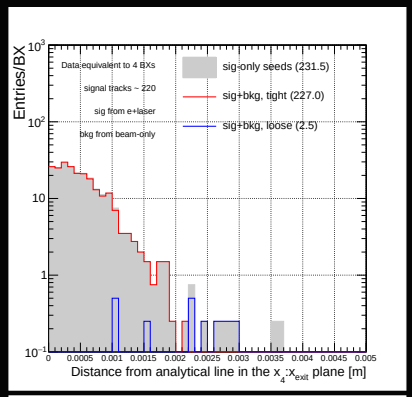



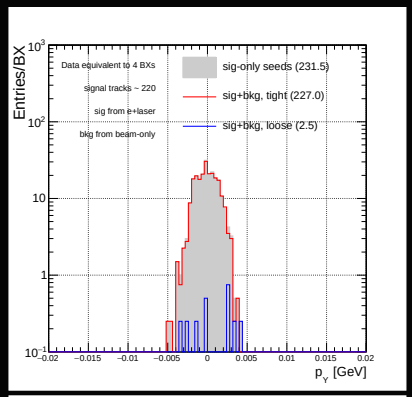



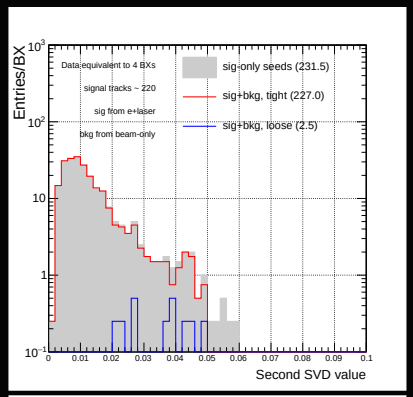



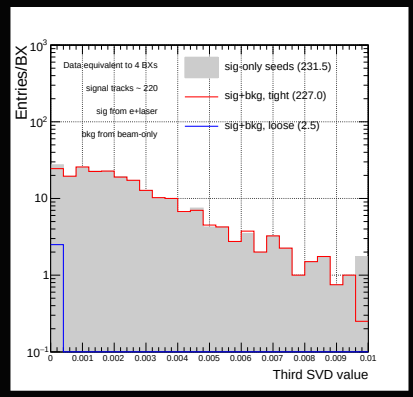
- Stepwise hybrid cuts on seeding algorithm: discussed on slide 8 of the attached pdf

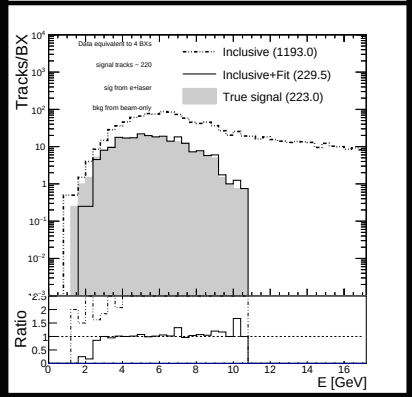
# number of signal tracks per BX: nTracks220

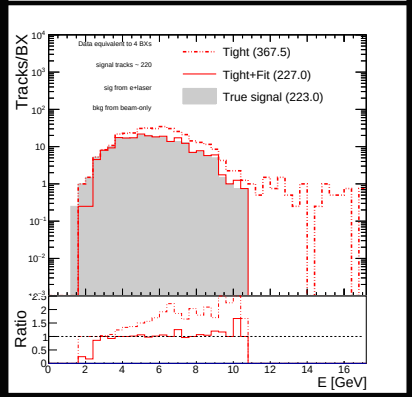


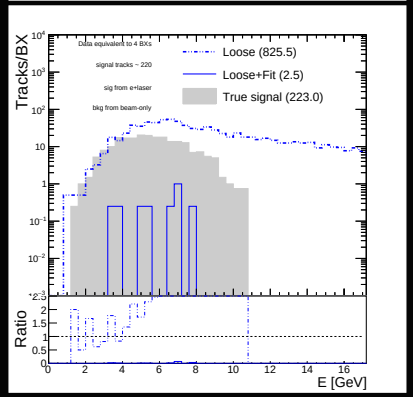



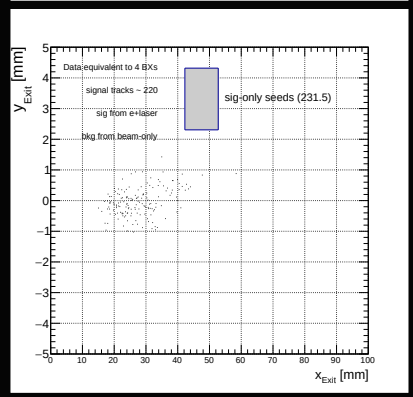



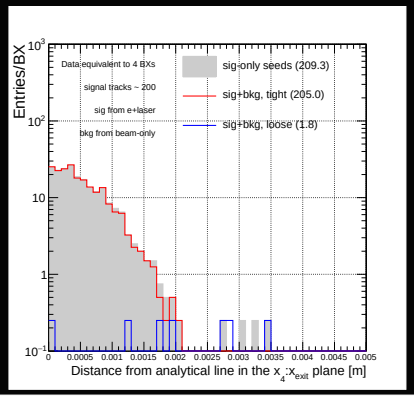



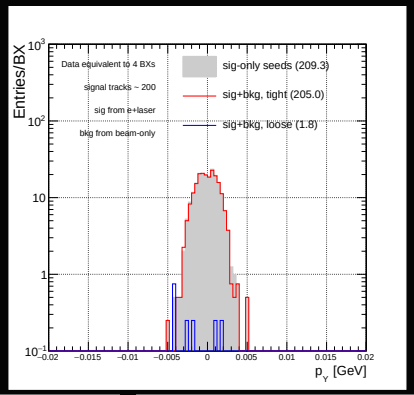



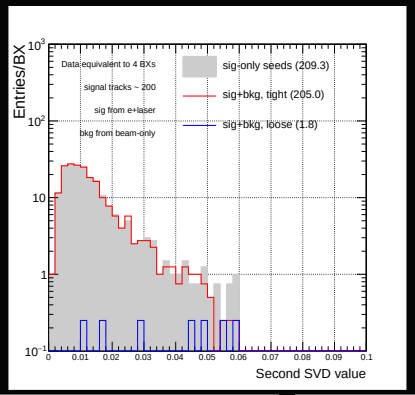



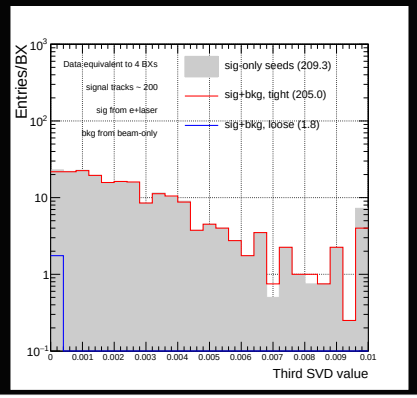



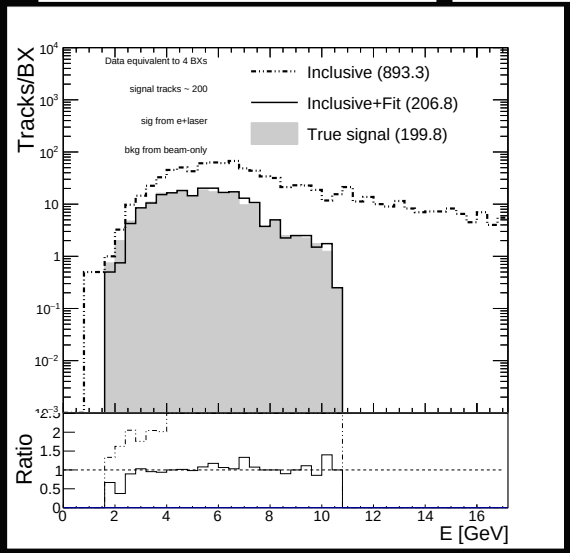
# number of signal tracks per BX: nTracks200

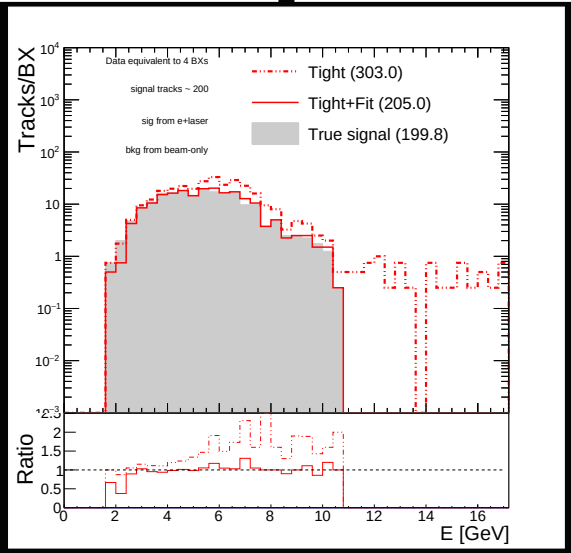


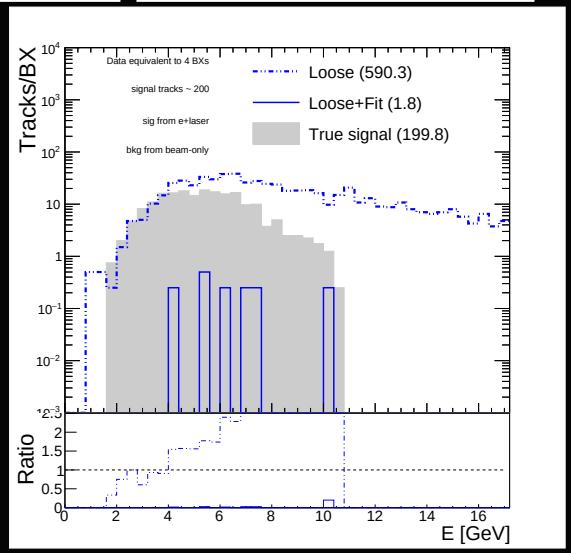



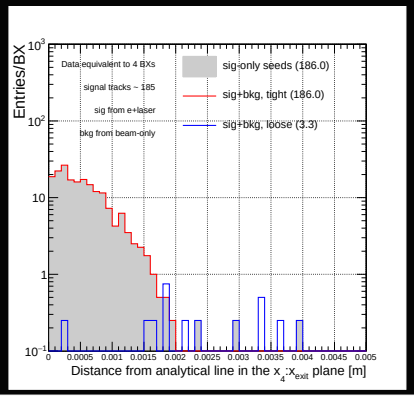



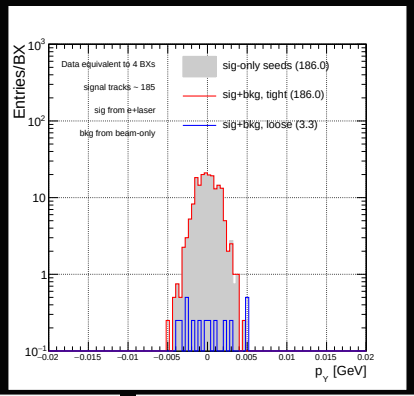



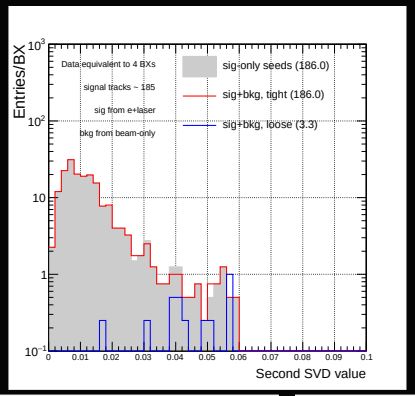



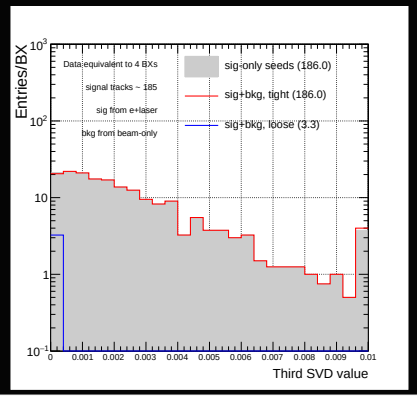



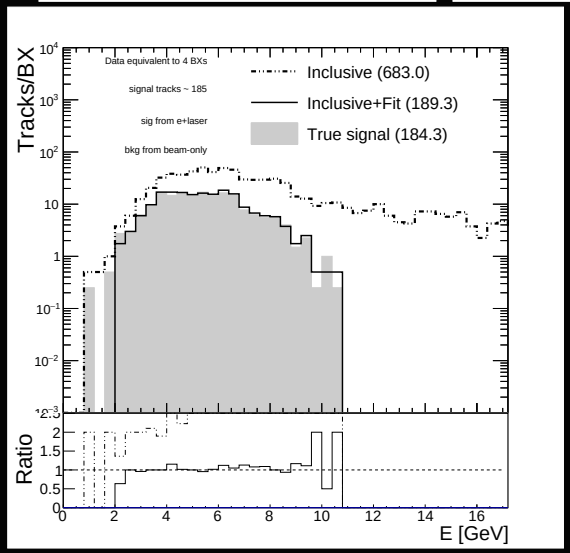
# number of signal tracks per BX: nTracks185

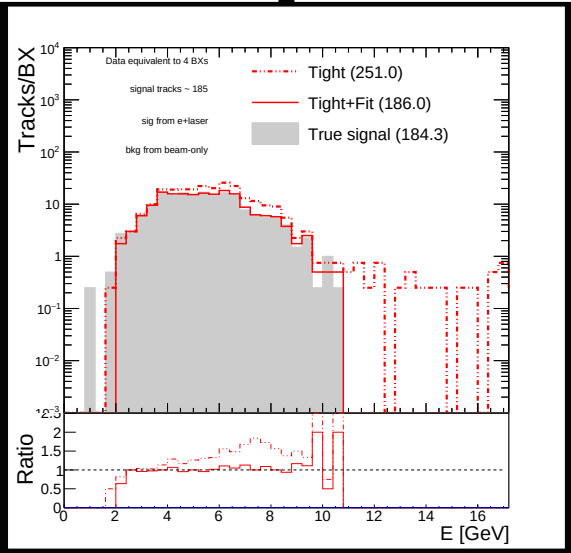


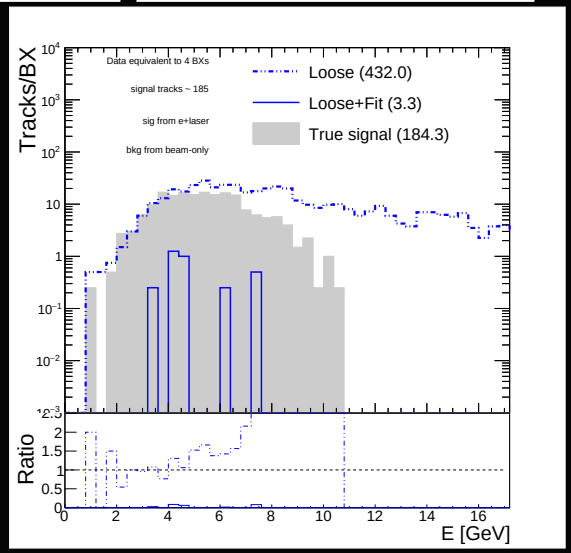



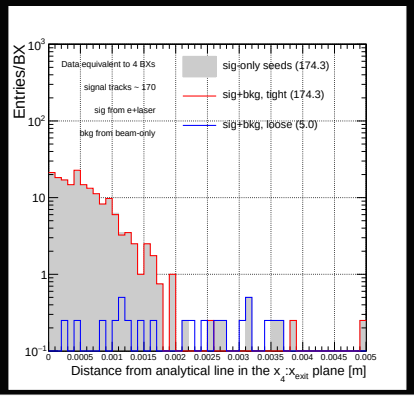



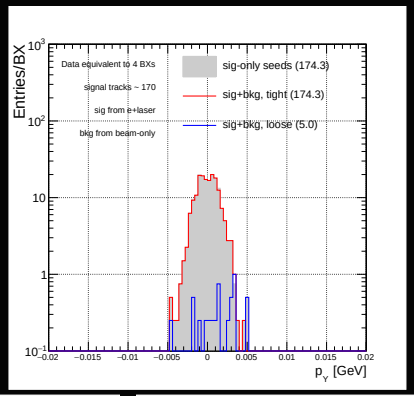



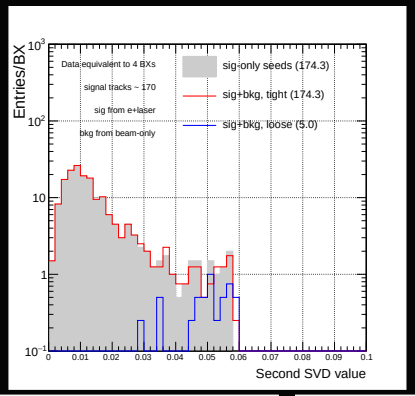



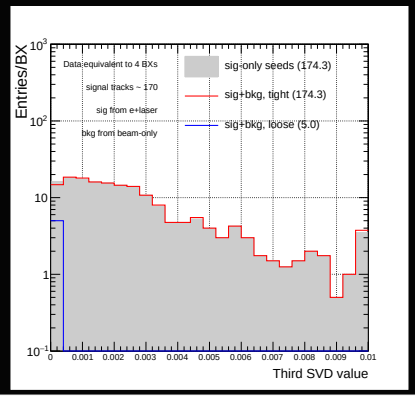



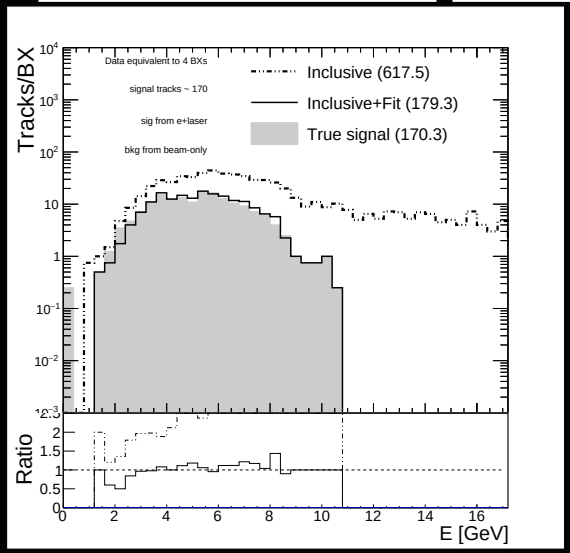
# number of signal tracks per BX: nTracks170

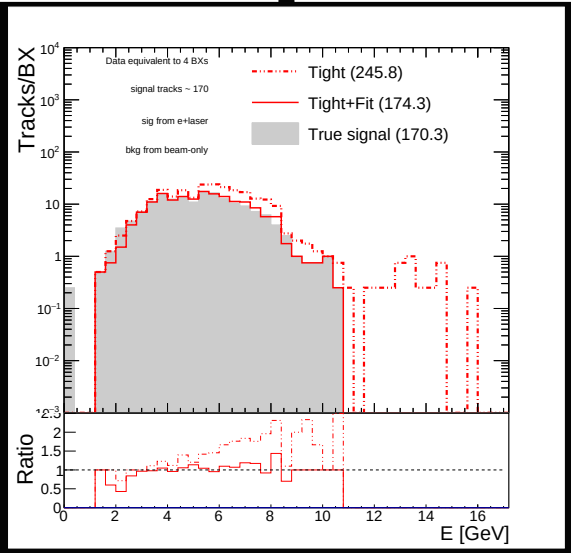


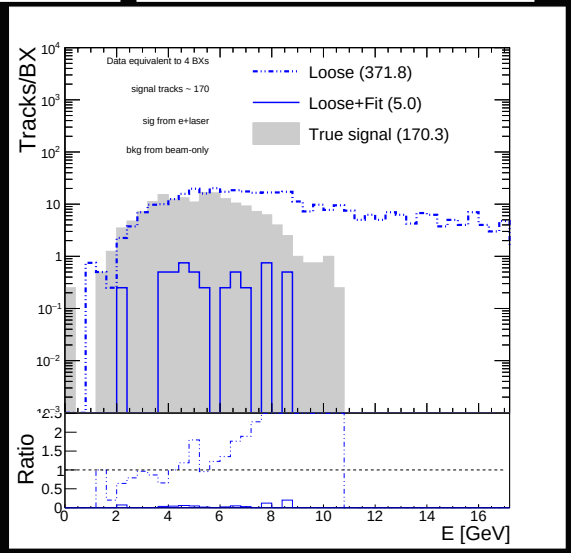



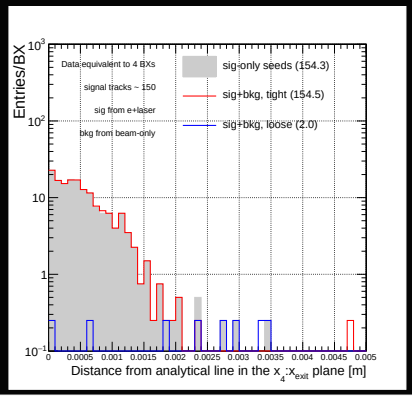



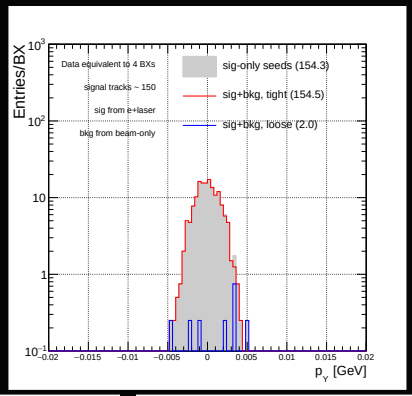



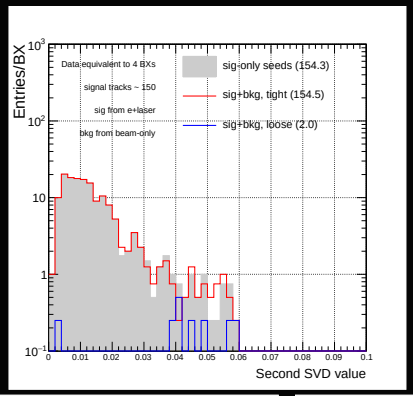



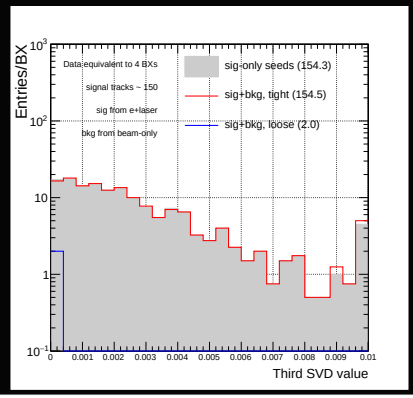



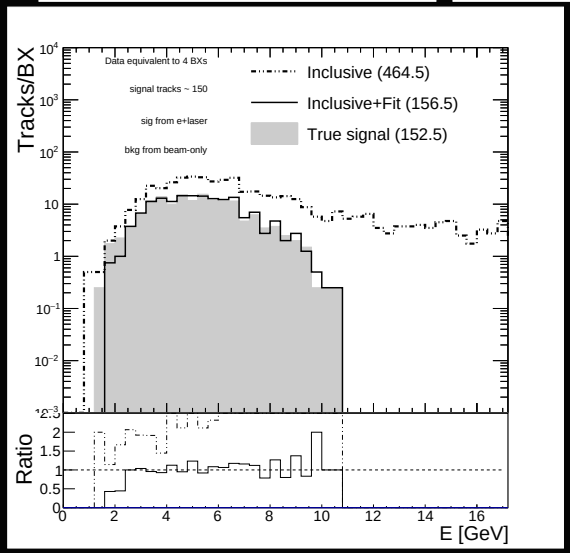
# number of signal tracks per BX: nTracks150

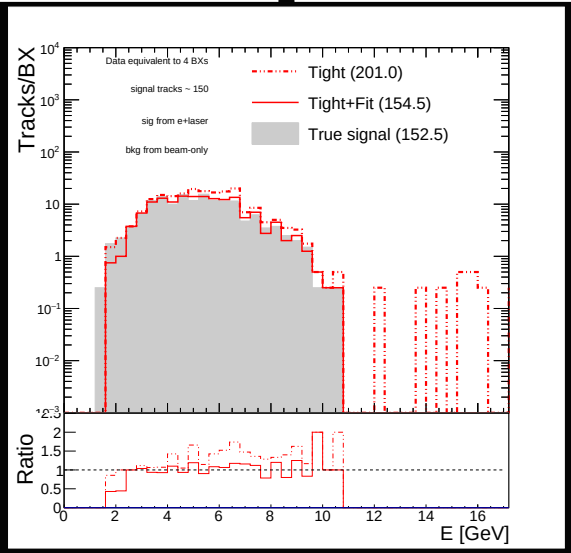


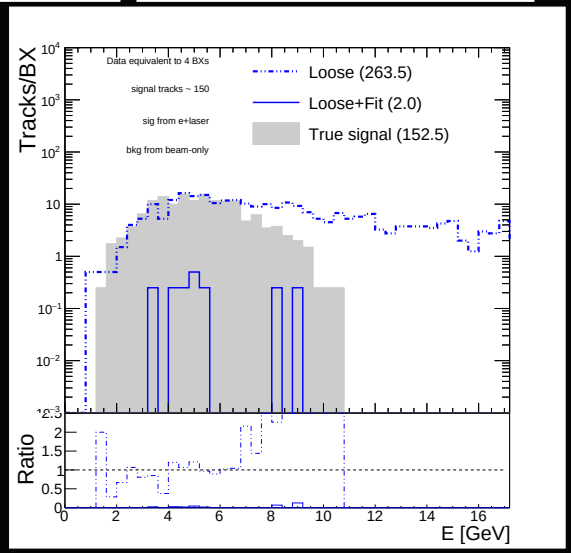



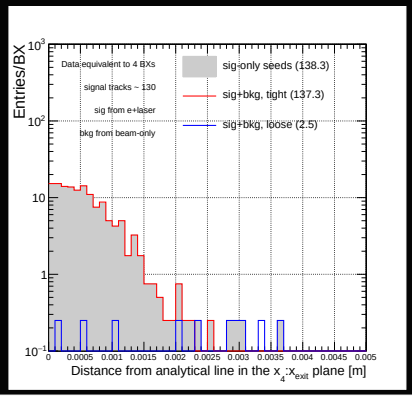



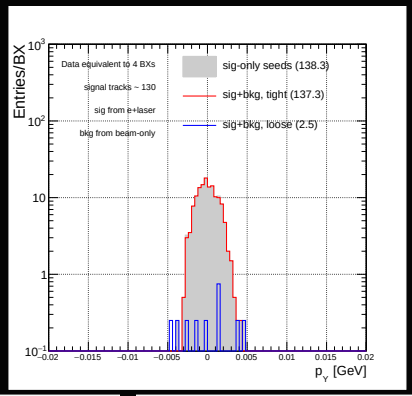



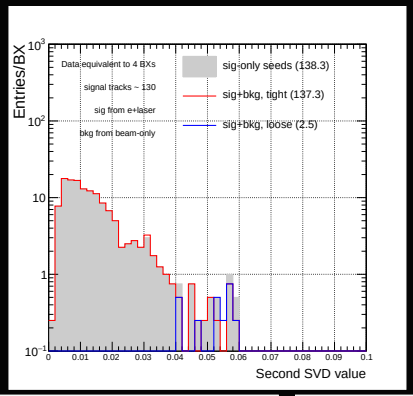



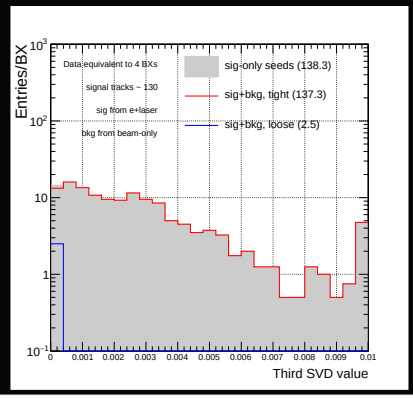



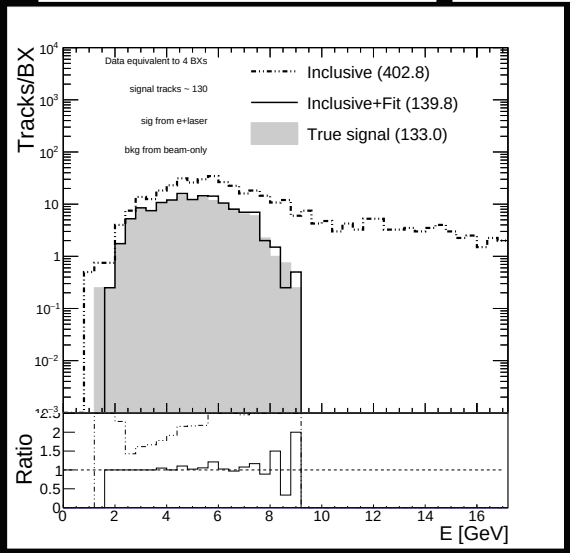
# number of signal tracks per BX: nTracks130

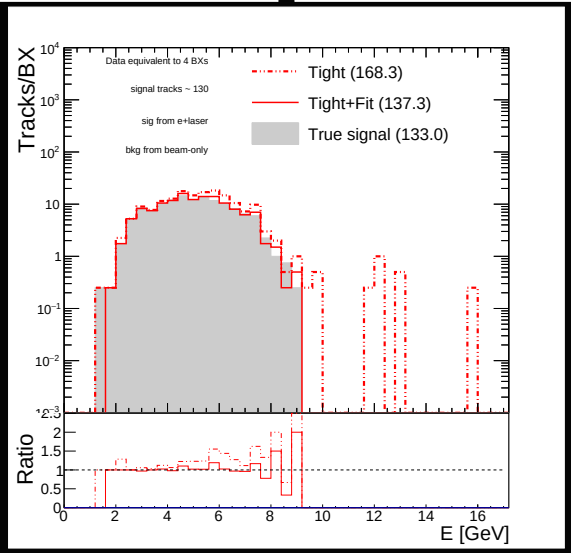


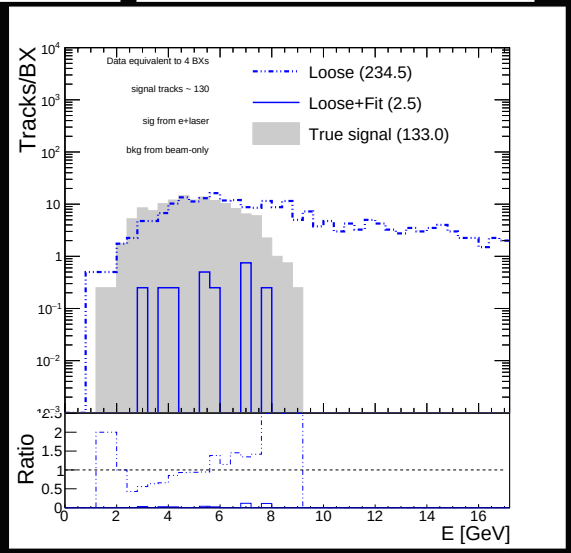



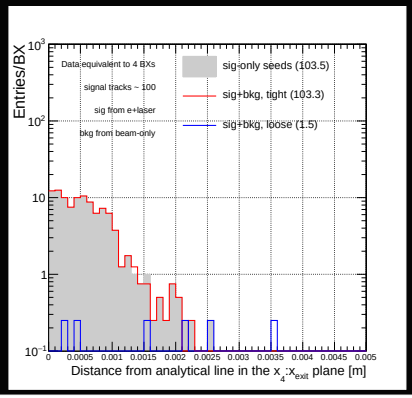



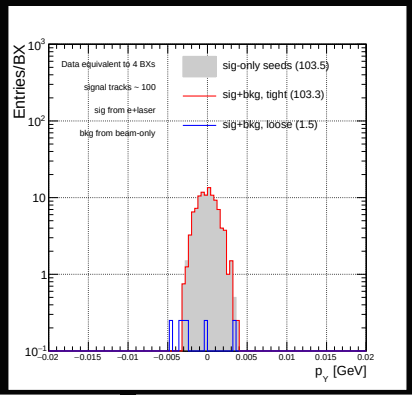



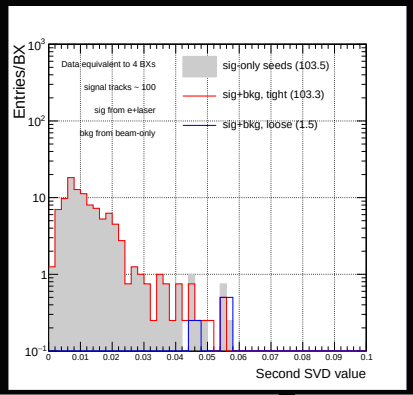



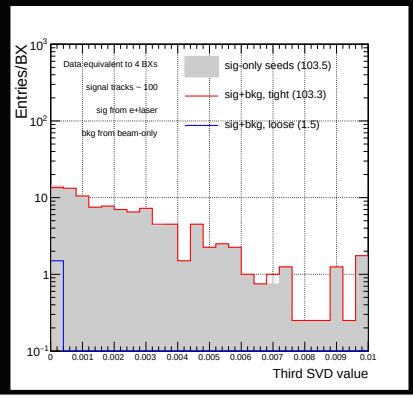



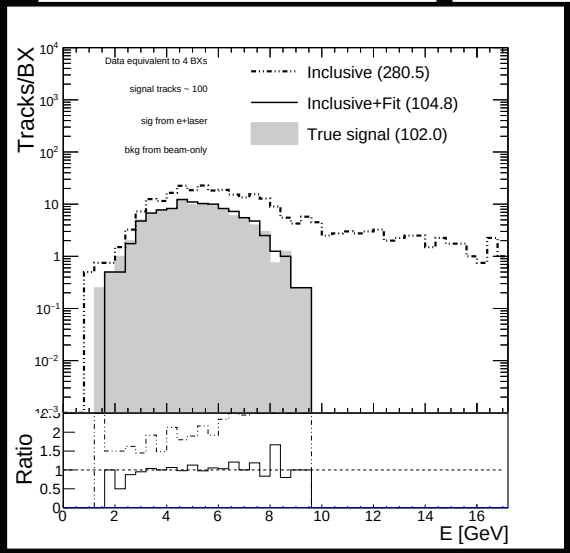
# number of signal tracks per BX: nTracks100

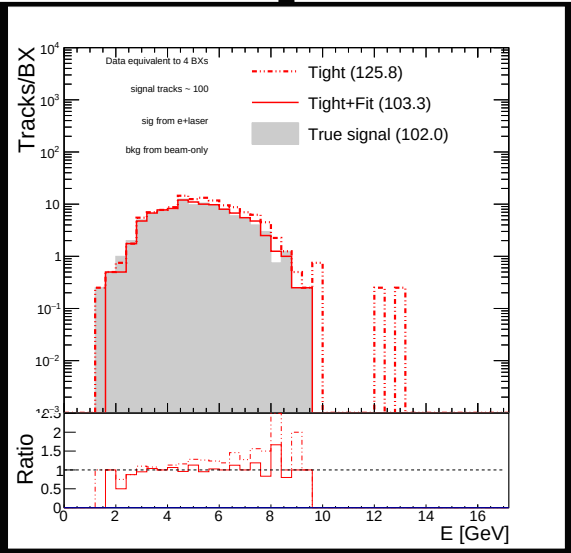


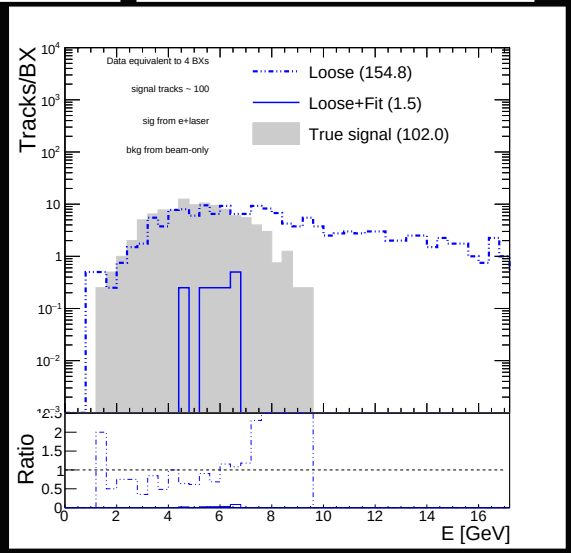



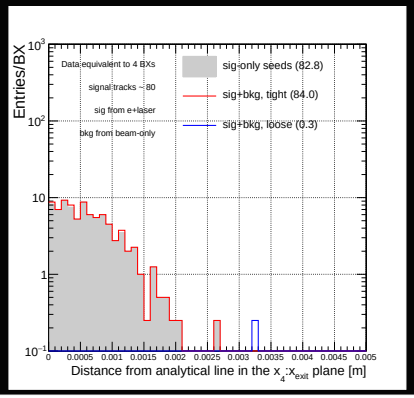



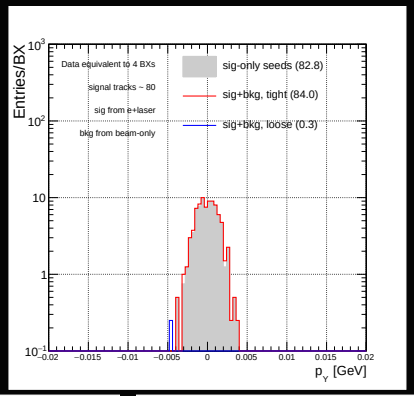



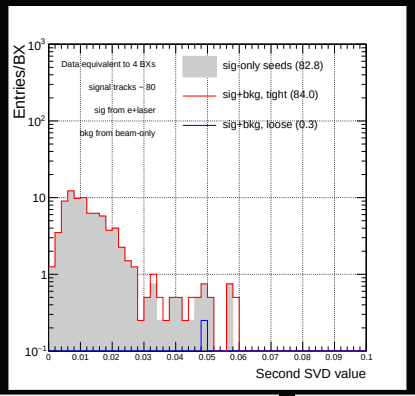



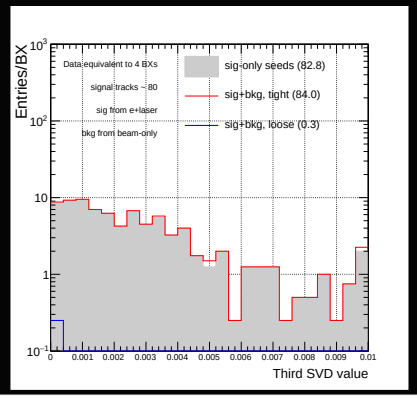



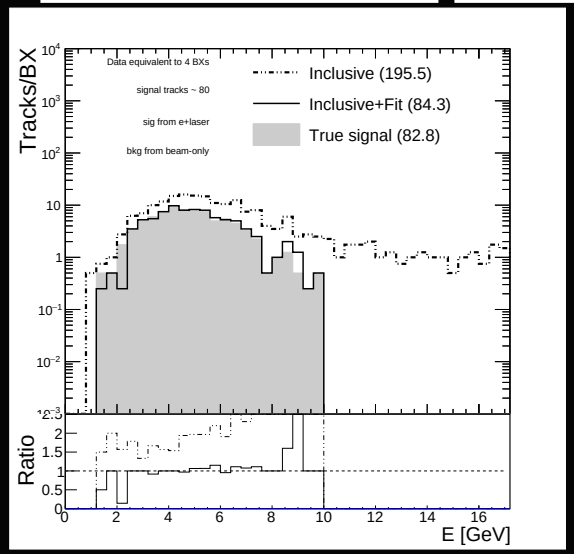
# number of signal tracks per BX: nTracks80

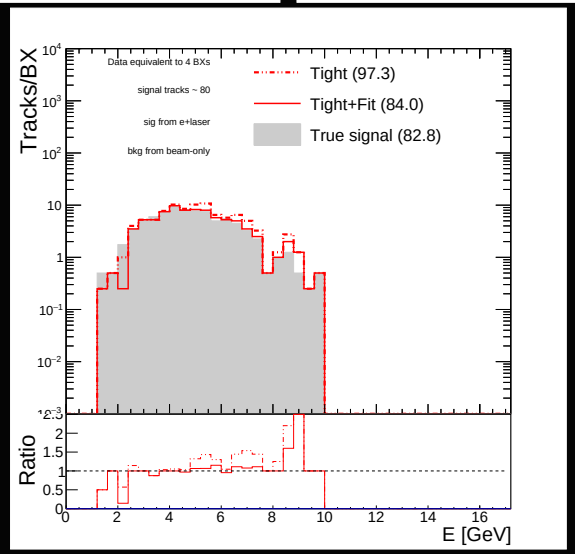


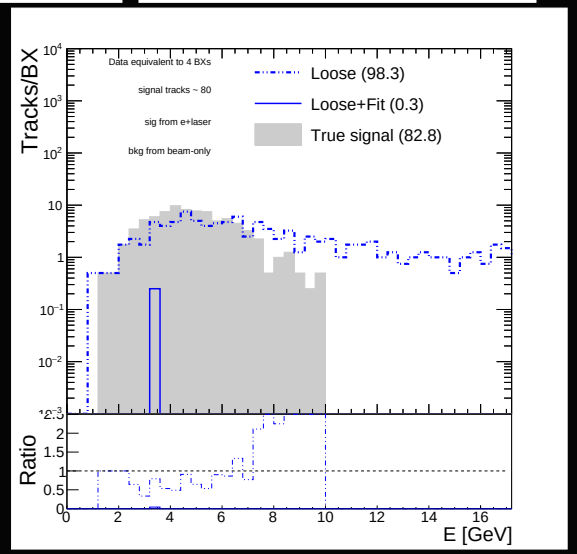



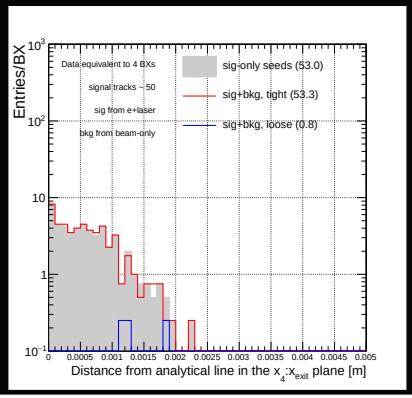



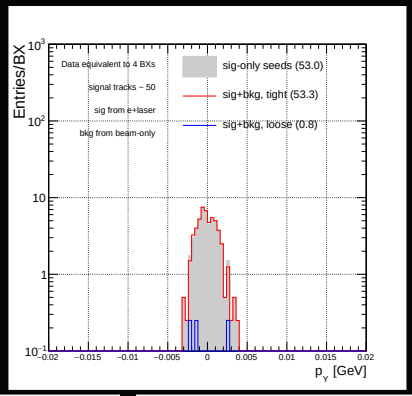



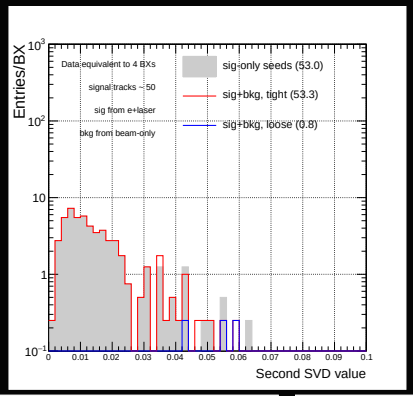



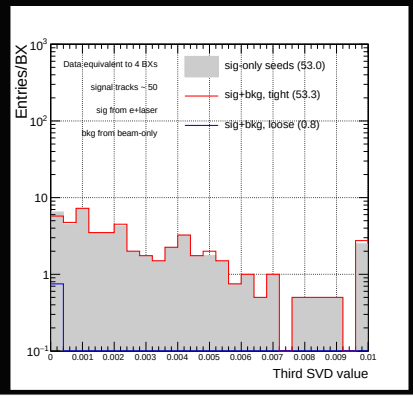



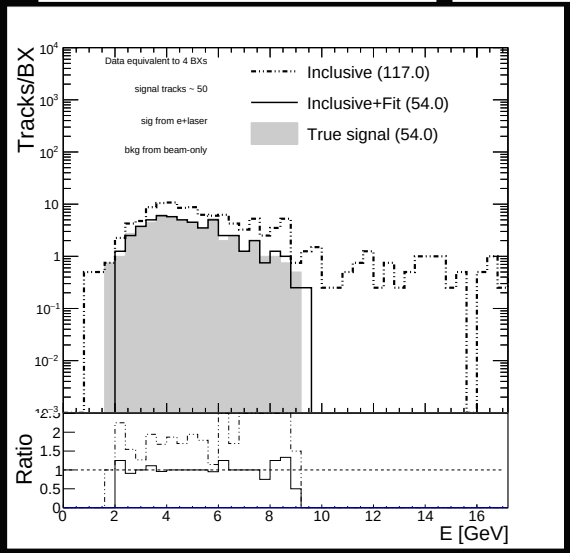
# number of signal tracks per BX: nTracks50

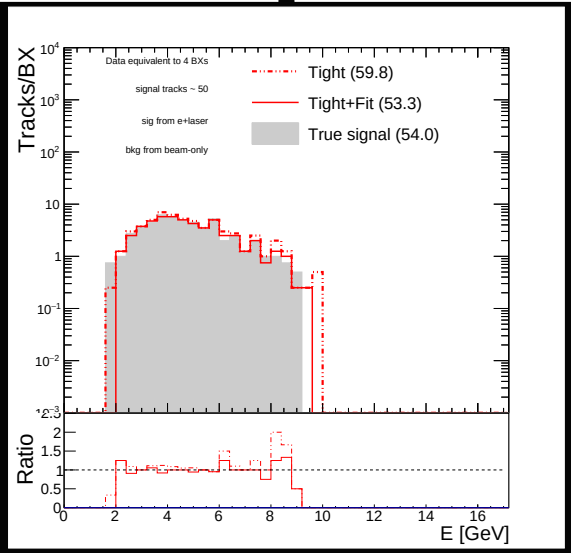


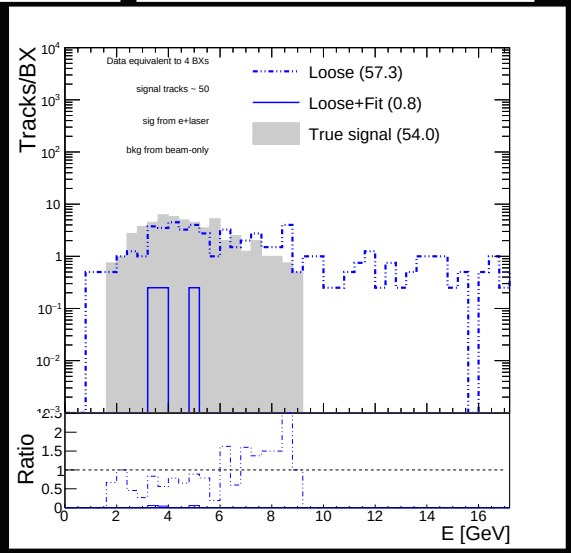



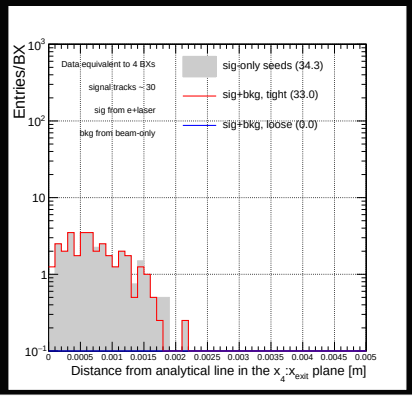



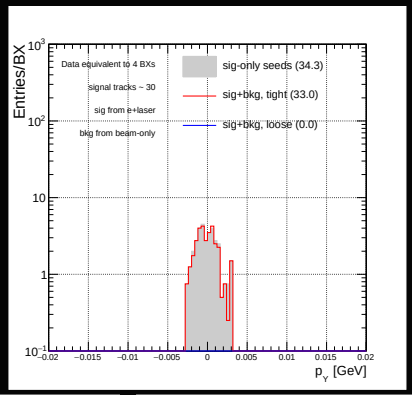



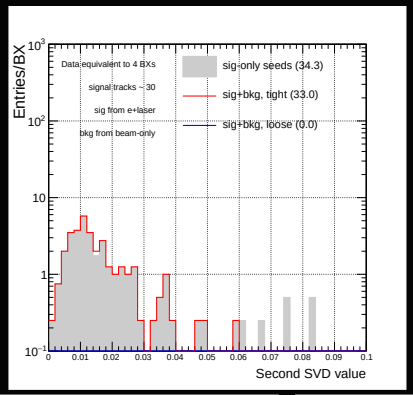



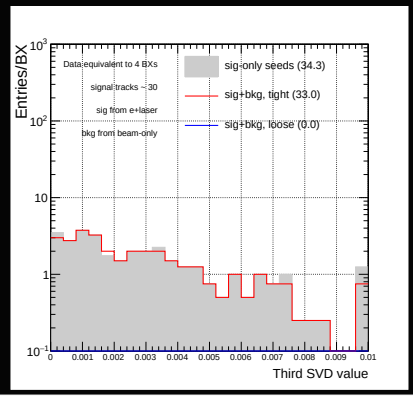



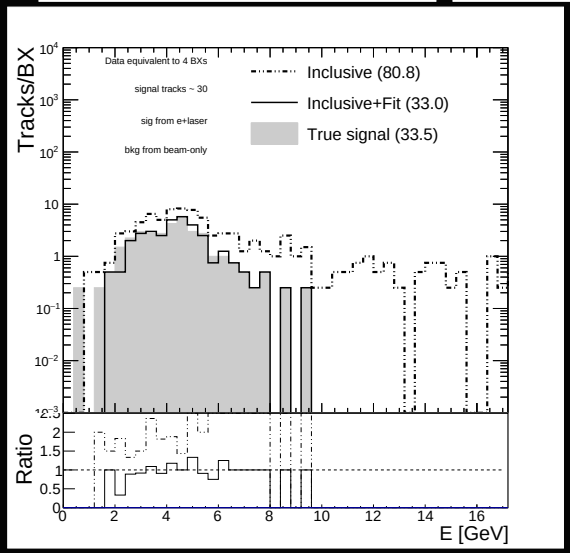
# number of signal tracks per BX: nTracks30

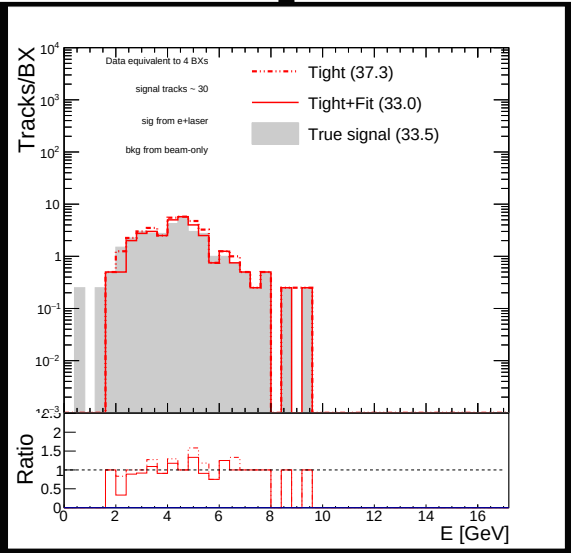


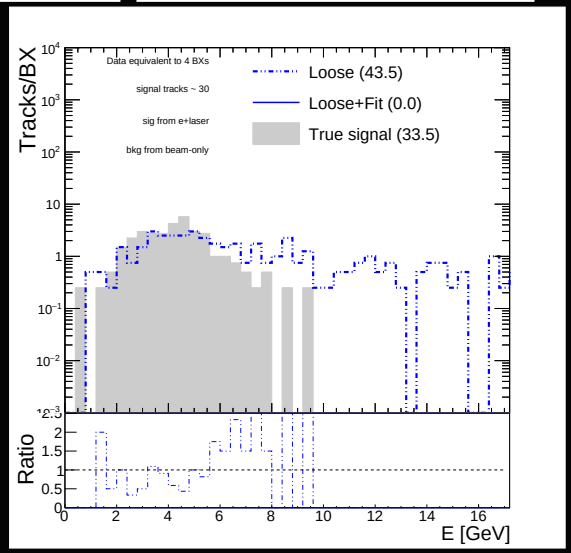



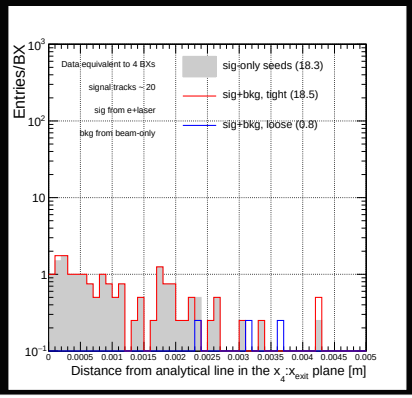



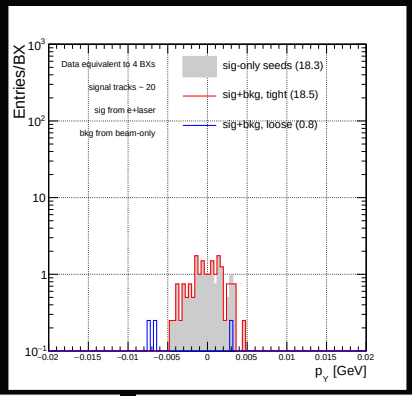



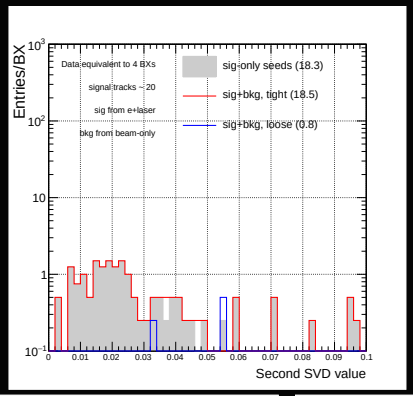



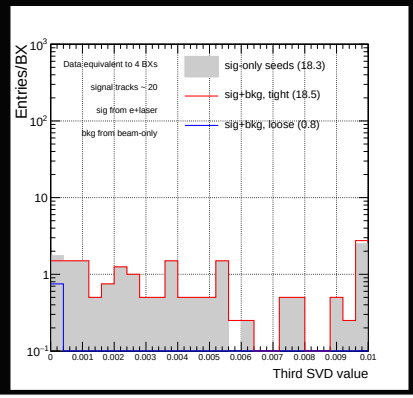



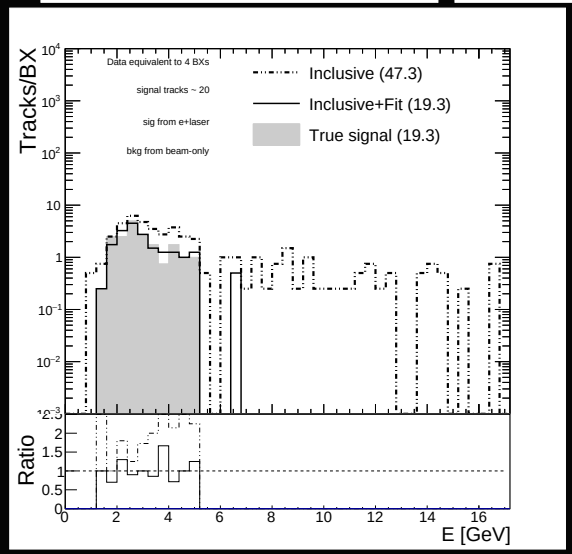
# number of signal tracks per BX: nTracks20

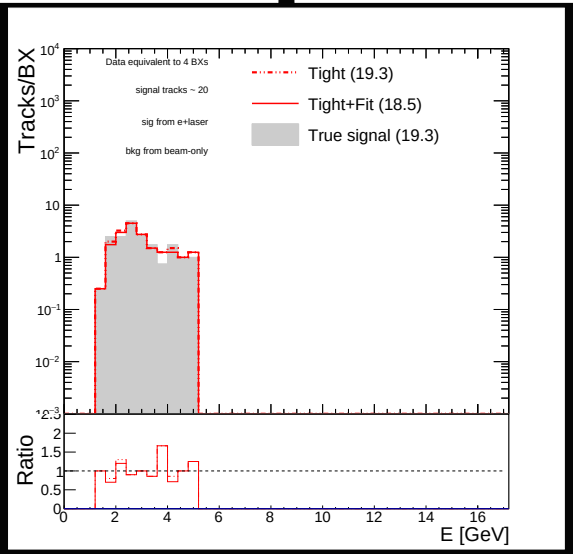


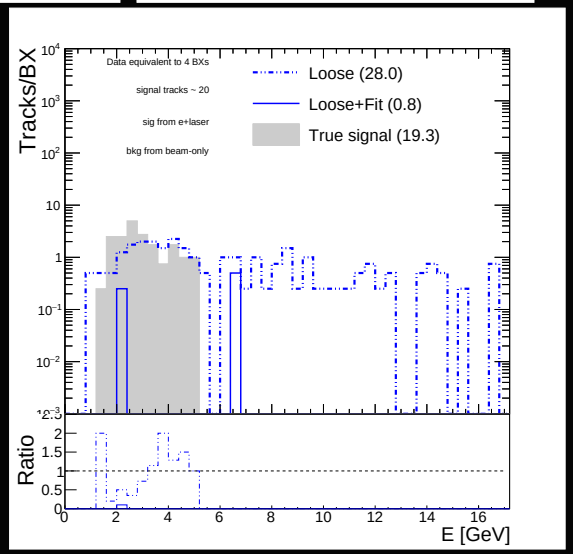



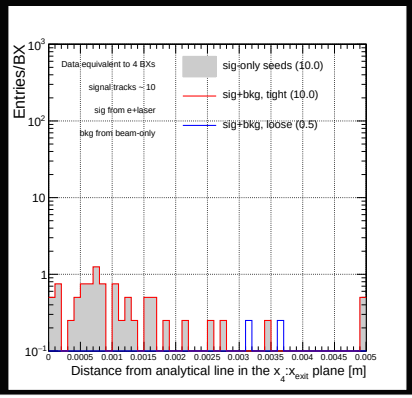



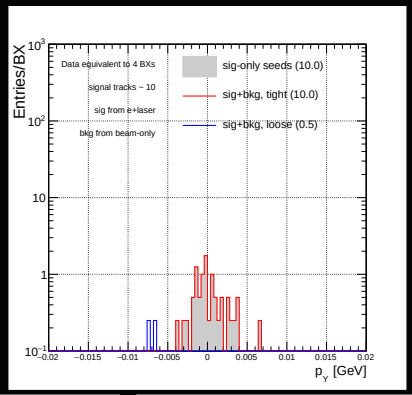



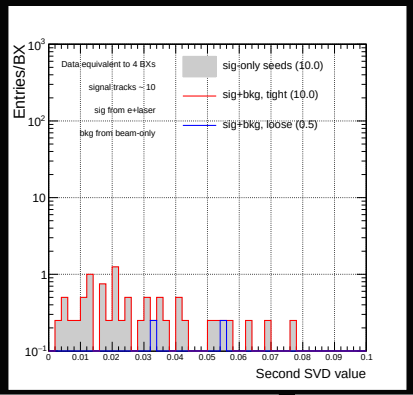



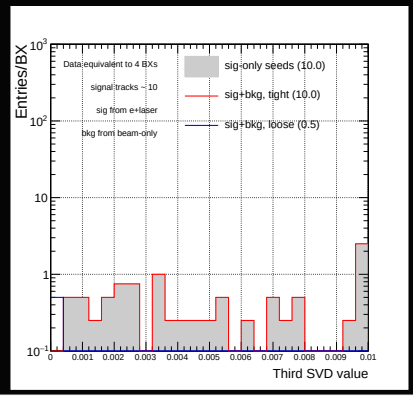



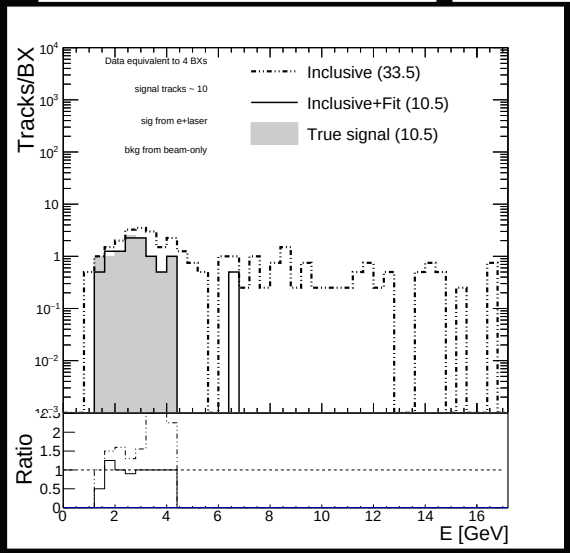
# number of signal tracks per BX: nTracks10

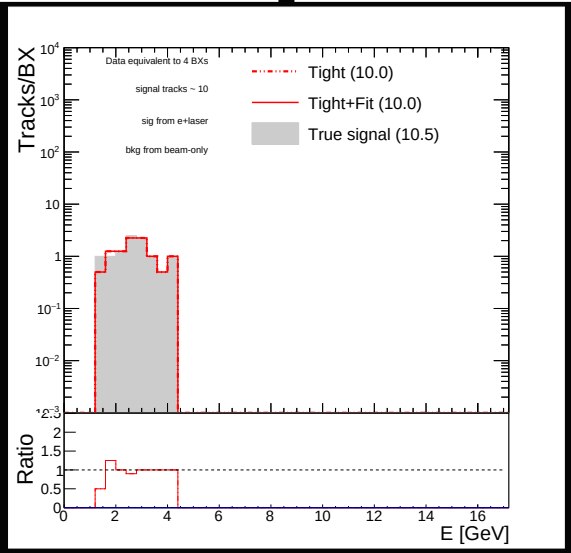


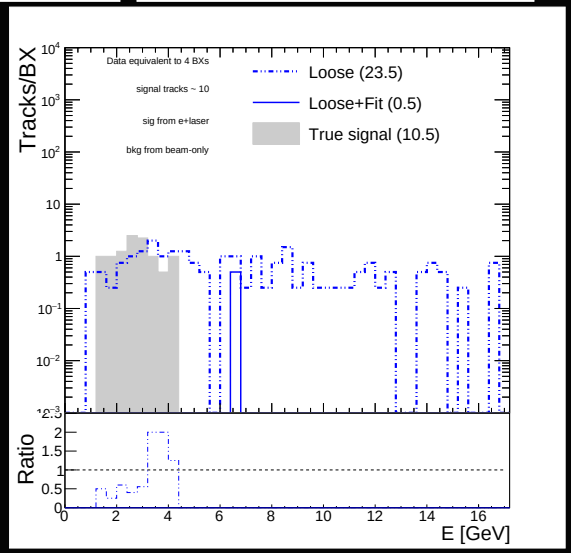



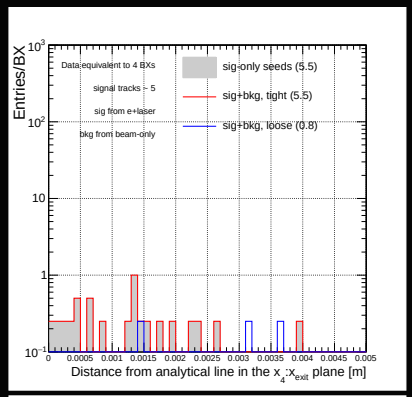



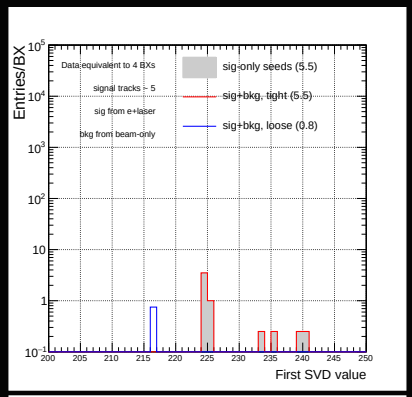



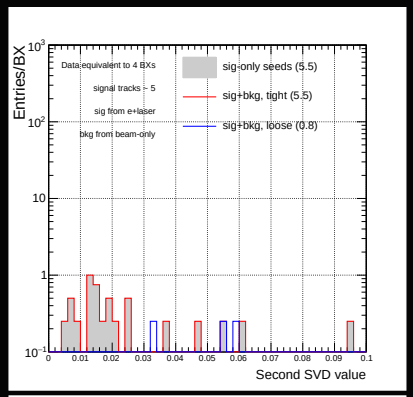



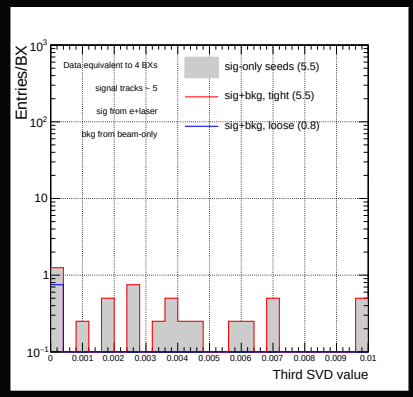



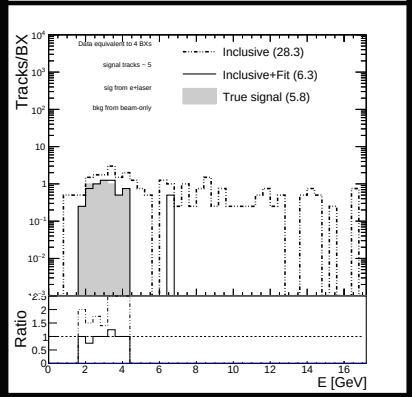
# number of signal tracks per BX: nTracks5

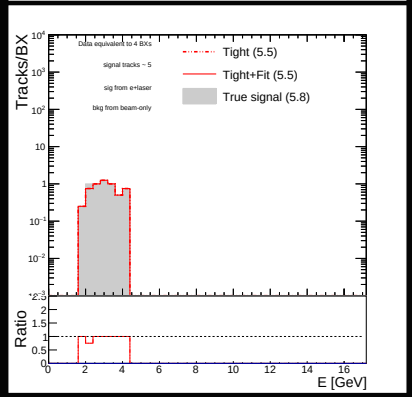


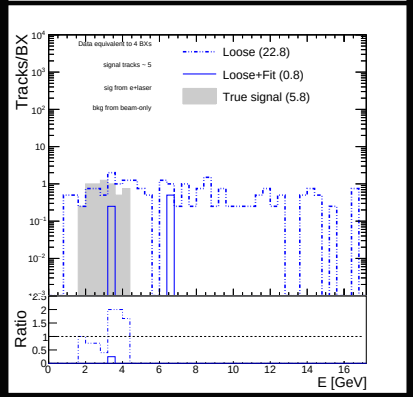



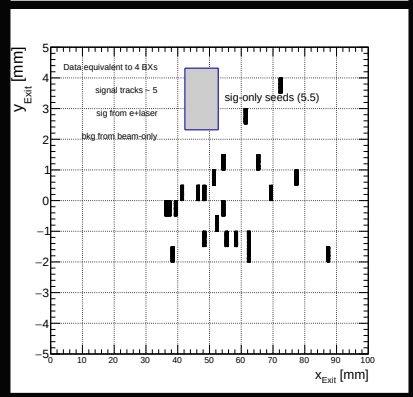



# number of signal tracks per BX: nTracks1