

(To be returned by 10:15 on Friday 21.2.)

1. Write a ROOT script which produces  $N$  ( $N=1000$ ) normally distributed random numbers. Fill a root tree (TTree) with them and save the tree into a root file (TFile).
2. Write a ROOT script to read the data saved in the root file in 1. Plot the data. Modify the figure so that the histogram is shown with a thicker black solid line, and the histogram area is filled with yellow color. Use white background color. Add  $x$  and  $y$  axis labels. Fit the histogram.

Please push your results into your public git repository.