# How to Run the ROOT Macros

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# Check out example packages

- *git clone git@github.com:syuvivida/ExamplesForStudents.git*

- In the directory ExamplesForStudents, you will find various macros (codes)

- Run the marcos after you set up ROOT

- The github link is

  - *https://github.com/syuvivida/ExamplesForStudents*

# Macro: eta.C

- Under **ExamplesForStudents/physics** directory

- This macro generates a flat $\theta$ distributions and from that the $\eta$ is computed

- To run this macro, type:

  - *root -q -b eta.C*

- After you run the macro, you will find a root file "eta_theta.root".

- In this root file, two histograms are saved, one is the distributions of $\eta$ and the other is the distribution of $\theta$

- To check the distributions inside this root file:

  - *root -l eta_theta.root*

  - *h_theta->Draw()*

  - *h_eta->Draw()*

# Macro: fillTree.C

- Under **ExamplesForStudents/rootBasics** directory

- This macro reads an input text file and fill the data into a tee. Then, the tree is saved in a root file

- To run the macro, type:

  - *root -q -b fillTree.C\(\"test.dat\"\)*

- Then a root file "Event.root" is created. Inside this root file, there is a tree called "tree"

- You could draw the variables inside tree or do other more complicated calculations

  - *root -l Event.root*

  - *tree->Draw("eta")*

  - *tree->Draw("pt")*