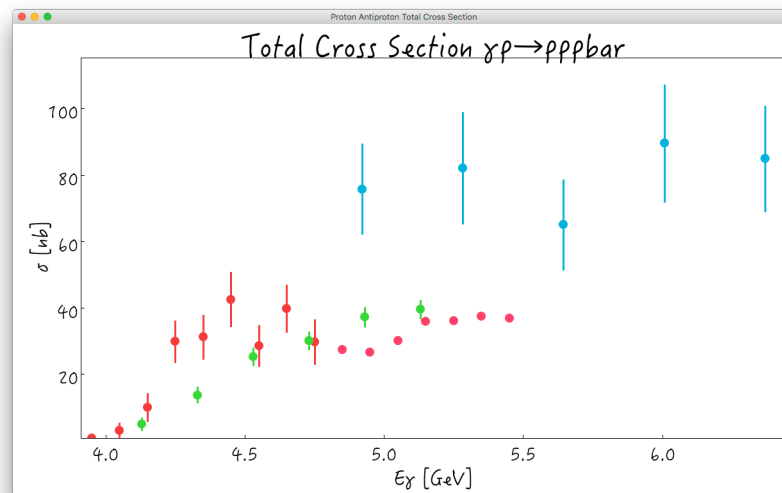
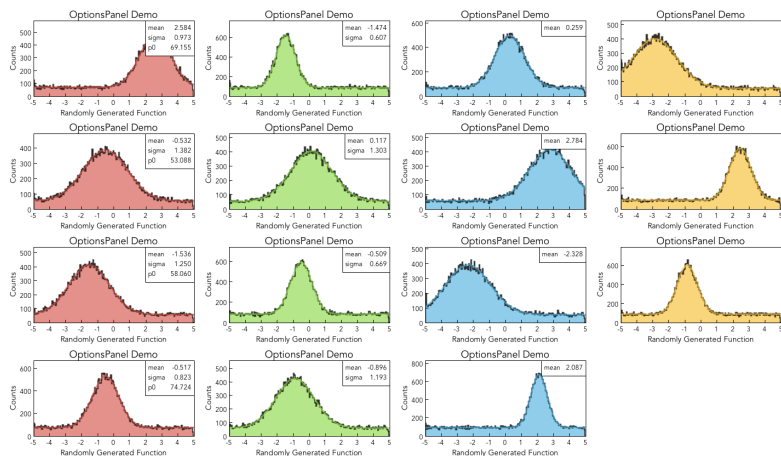
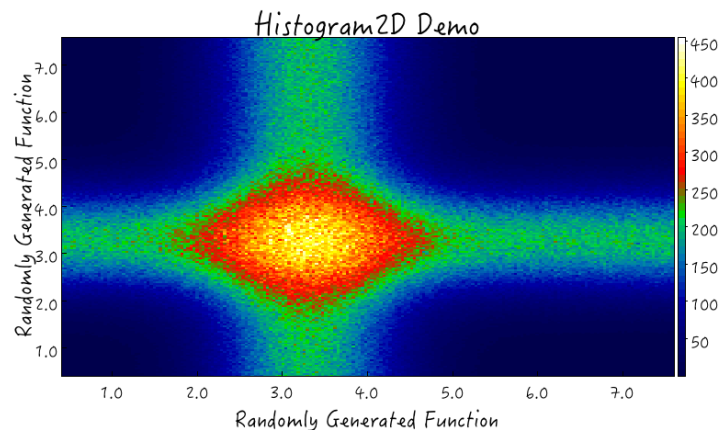


COMMON TOOLS

William Phelps, Nathan Harrison, Gagik Gavalian and the
CLAS12 Software Group

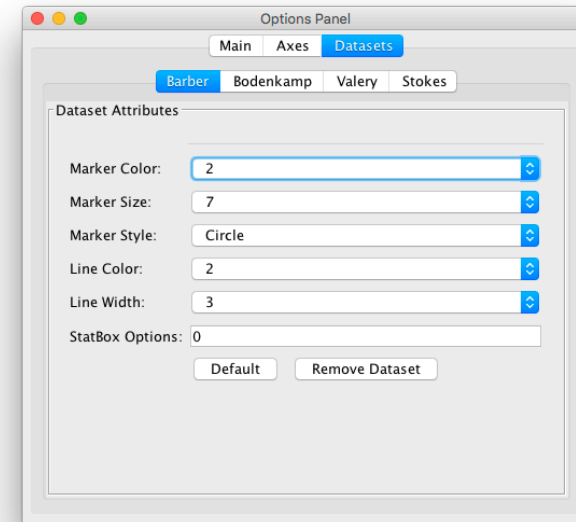
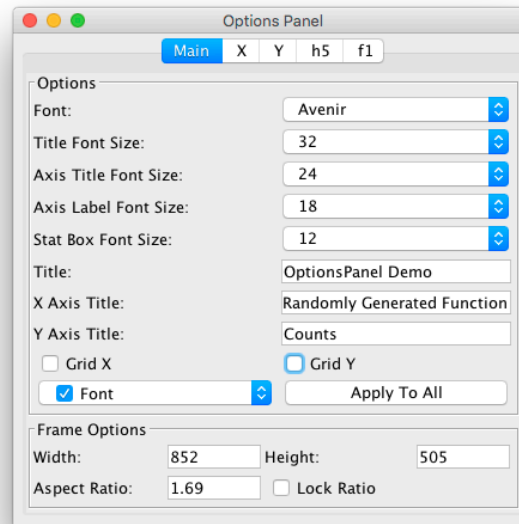
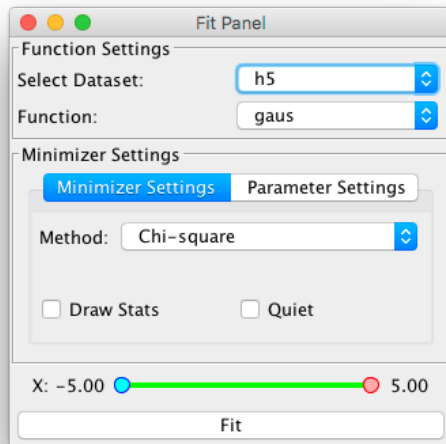
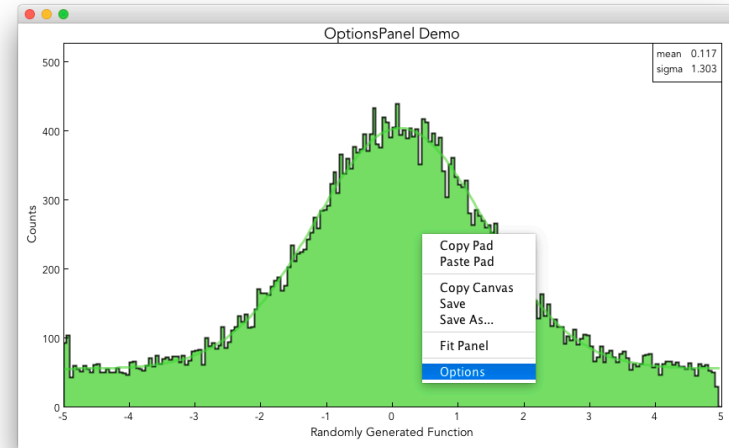
Common Tools

- Histogram 1D/2D
- GraphErrors
- Fitting Package
- User defined functions
- GUI Tools



GUI Tools

- These tools allow users to quickly modify a canvas to look presentable
- Copy/Paste datasets
- Copy canvas images to an email/presentation



Documentation for Plotting/Fitting

Home

Will Phelps edited this page 2 days ago · 17 revisions

GROOT is an easy-to-use plotting and fitting package that includes a set of GUI tools. To make things easy this will be the main source of documentation and the [Issues](#) page will be how we track bugs and feature requests.

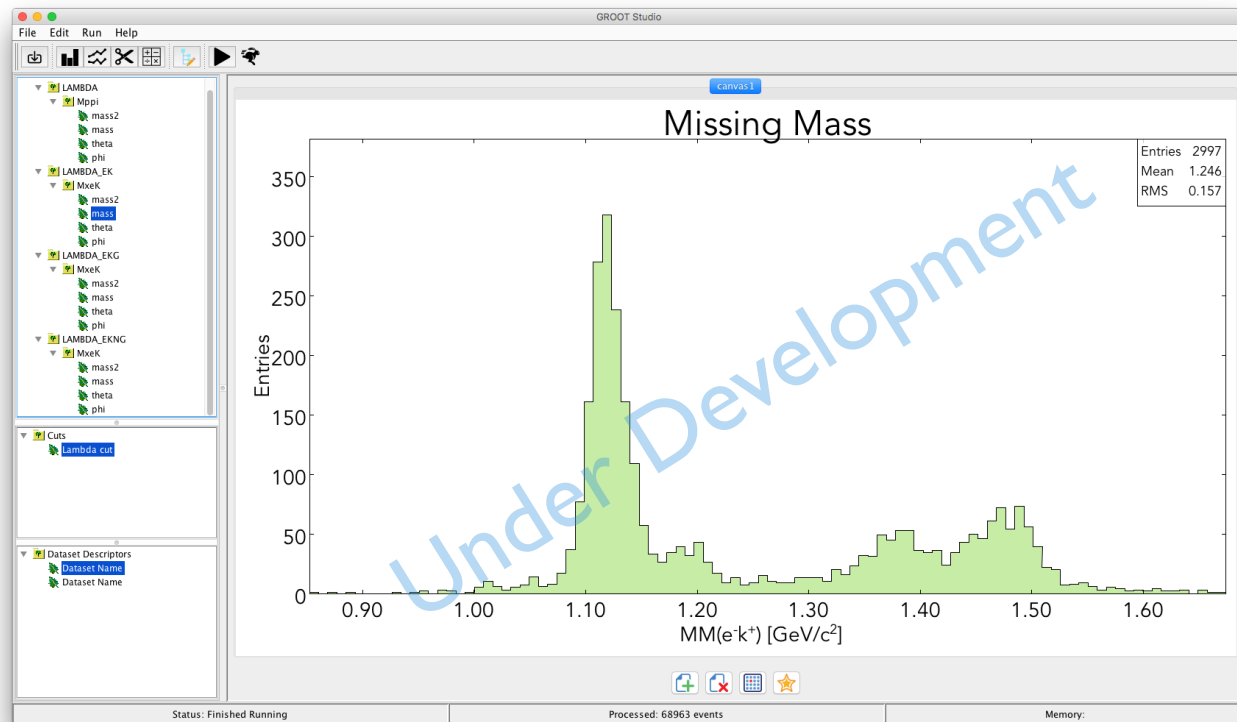
Learning By Example

- [Introduction to Histograms](#)
- [Introduction to GraphErrors](#)
- [Two Dimensional Histograms](#)
- [Basic Fitting](#)
- [Advanced Fitting](#)
- [Advanced Example \(Multipad with fitting\)](#)
- [Global Style Options](#)

Documentation Location:
<https://github.com/gavalian/groot/wiki>

GROOT Studio

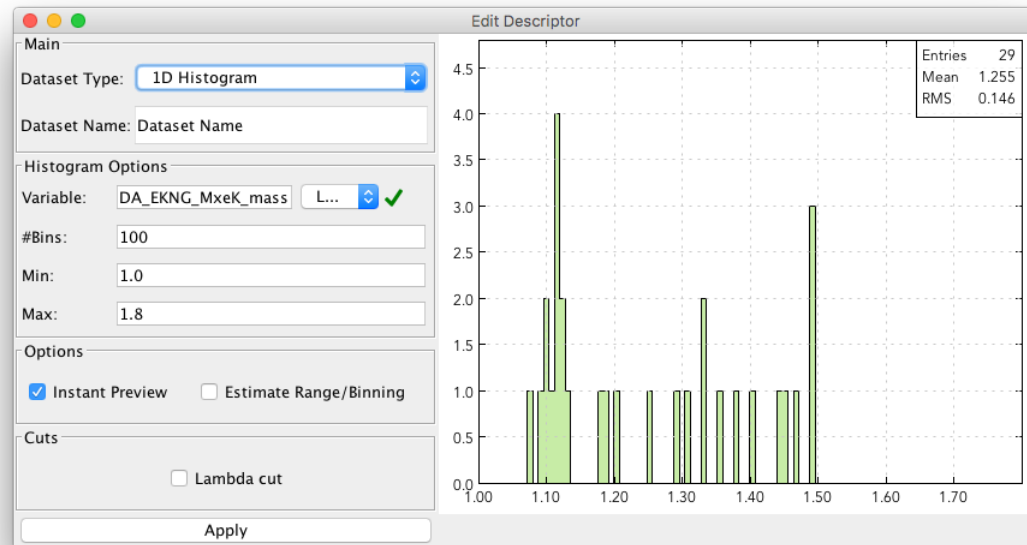
- Open Hipo File directly
- Dynamically Apply Filters
- Manipulate 4-Vecs
- Add cuts
- Use Common Tools GUI features to edit and fit datasets



```
> cd /work/clas12/collaboration_meeting  
> java -jar kppstudio.jar clas12dst_000755.hipo
```

Using the Studio

- Add Filters and Cuts
- Quick Look by clicking on the leaves
- Create a Dataset Descriptor, to save the histogram/ GraphErrors (Filled all at one time)
- Apply cuts and see a live preview of how it affects your distribution



- Instant preview
- Automatic Range/Binning Suggestion
- Select cuts to apply