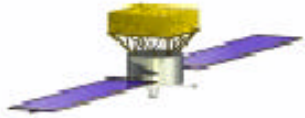


# GLAST-BFEM Event Display

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## Balloon Event Display

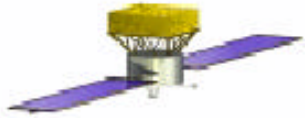
N.Lumb, G.Spandre  
INFN - Pisa



# GLAST-BFEM Event Display

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- Started from Dubois *et al* skeleton code.
- Based on C++/ROOT macros.
- Implemented GUI to display single events...
  - File selection using TGFileDialog class
  - Step forward/back one event
  - Cue and Review events
  - Go to chosen event on file
- ... and to display analysis histos
  - Subdetector parameters e.g. Hit profiles for TKR, total energy in CAL,...
  - Use to apply cuts for event selection.

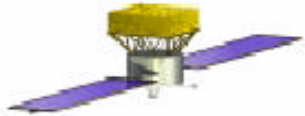


# GLAST-BFEM Event Display

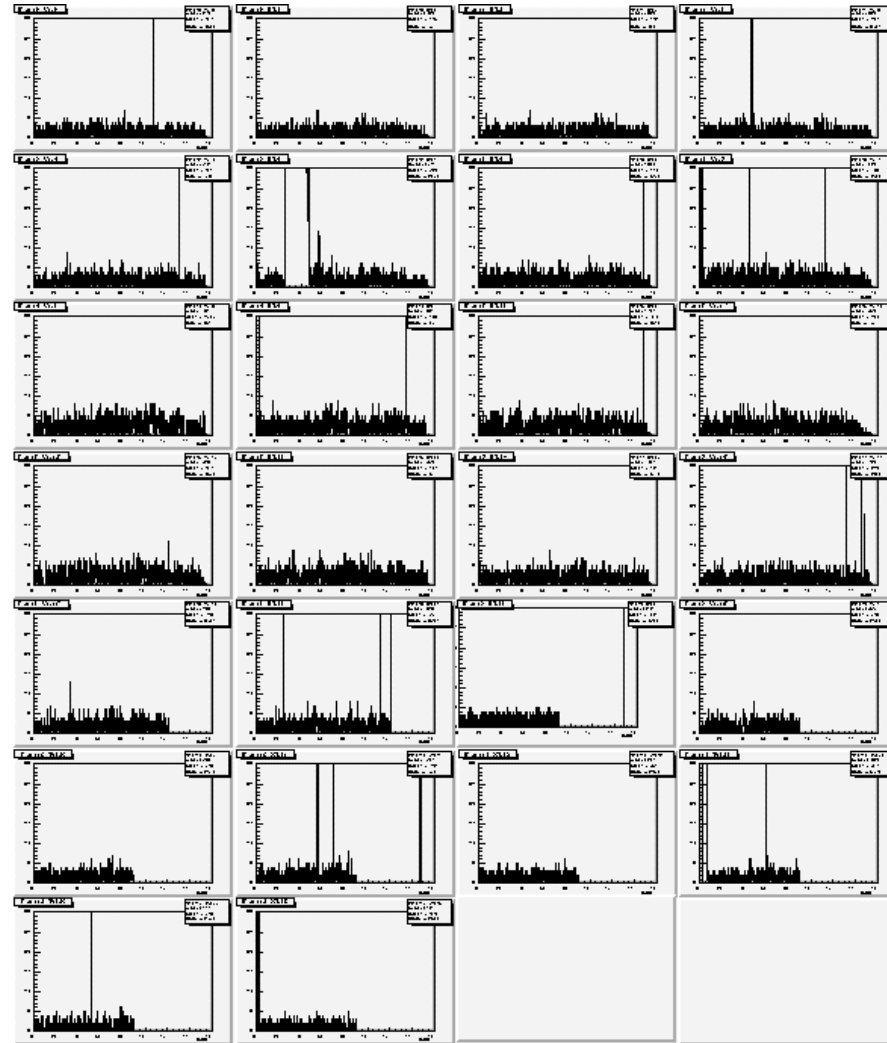
The screenshot displays the GLAST-BFEM Event Display software interface. The main window, titled "GLAST Event Display", features a 3D visualization of the "Balloon Tower" detector structure. The detector is shown as a blue wireframe box with a yellow top section. Event tracks are visible as lines within the structure. Two histograms are displayed in the right-hand panel, labeled "Z-X" and "Z-Y". The Z-X histogram shows a distribution of events, with a red box highlighting a specific region. The Z-Y histogram shows a similar distribution. Below the histograms, there are energy threshold indicators: "Red > 0.0050 GeV", "Blue > 0.0020 GeV", and "Green > 0.0010 GeV".

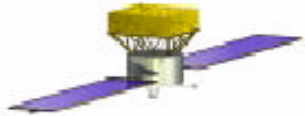
The "EventControl" panel on the left includes a "Data files" section with the path "Raw: /home/msgc/nick/EventDisplay/bal\_data/0990831833\_0000\_lvte.root". The "Event control" section has a "Mode: Analysis" button and several navigation buttons: "Next event", "Previous event", "Go forward" (with a text input field containing "1324"), "All events", "Rewind", and "Stop". The "Histogram selection" section includes buttons for "TKR", "CAL", "ACD", and "XGT".

An "Open" dialog box is visible in the foreground, showing a file browser with the "Look in:" field set to "EventDisplay". The file list includes various files and directories, such as "CVS", "ball\_data", "AnalysisRaw.cxx", "EventControl", "libdigiRootData.so", "libreconRootData.so", "Analysis.h", "ControlButtonFrame.cxx", "ControlButtonFrame.h", "ControlButtonFrame.o", "Enum.h", "EventControl.cxx", "EventControl.h", "EventControl.o", "Histograms.root", "Makefile", "README", "RUN208PEDS.h", "TestDisplay.cxx", "TestDisplay.cxx\_old", and "TestDisplay.h".

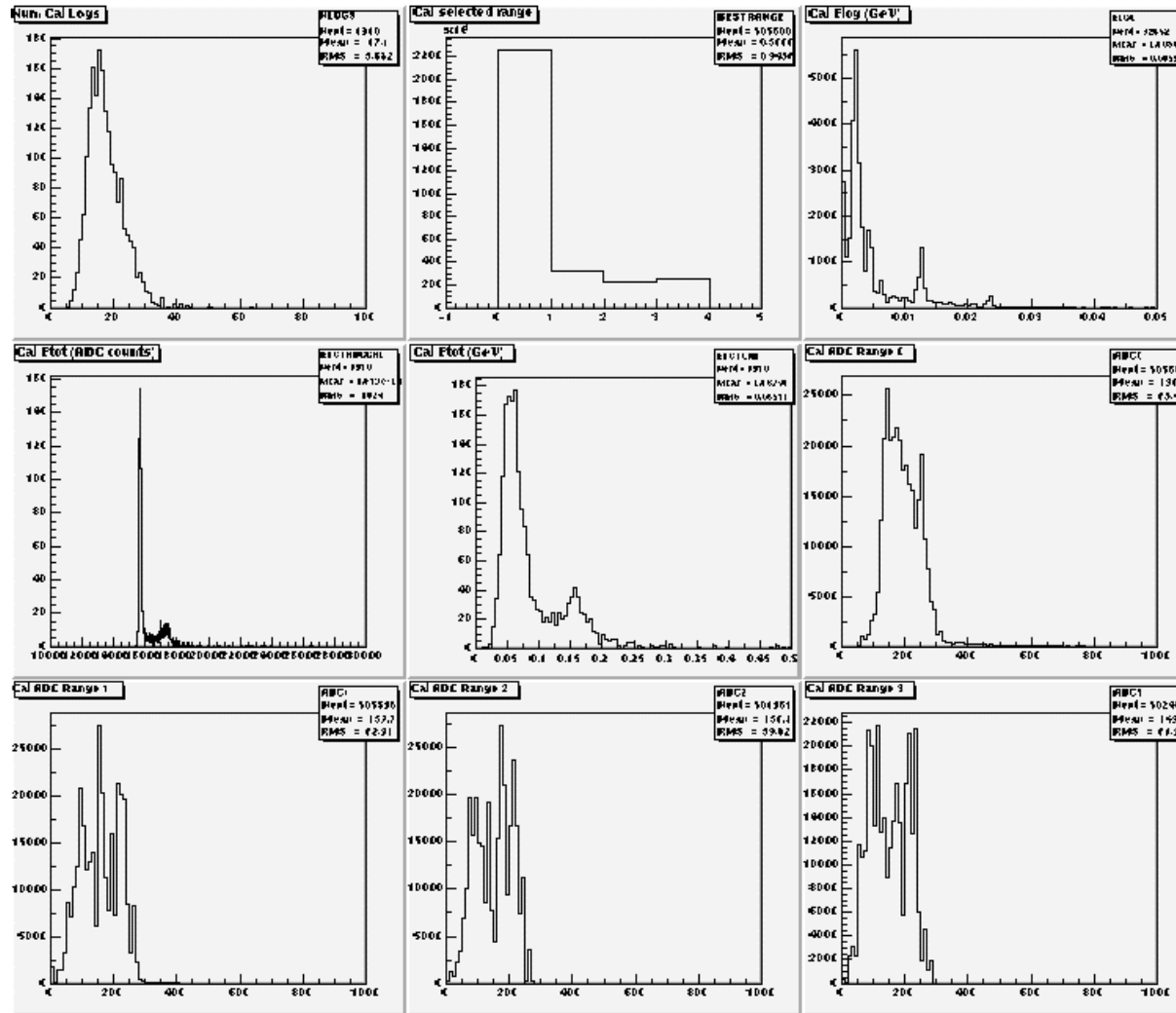


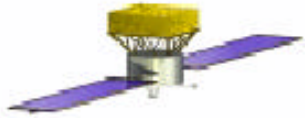
# GLAST-BFEM Event Display





# GLAST-BFEM Event Display





# GLAST-BFEM Event Display

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## Future Perspectives

- Implement recon data.
- Compiled version – faster analysis, more robust.
- Import XML geometry (Riccardo's code?)
- Write user documentation/generate Doxygen description.
- Implement suggestions from others!