Character arrays in the Ntuple

AnalysisNtuple v2r15p8

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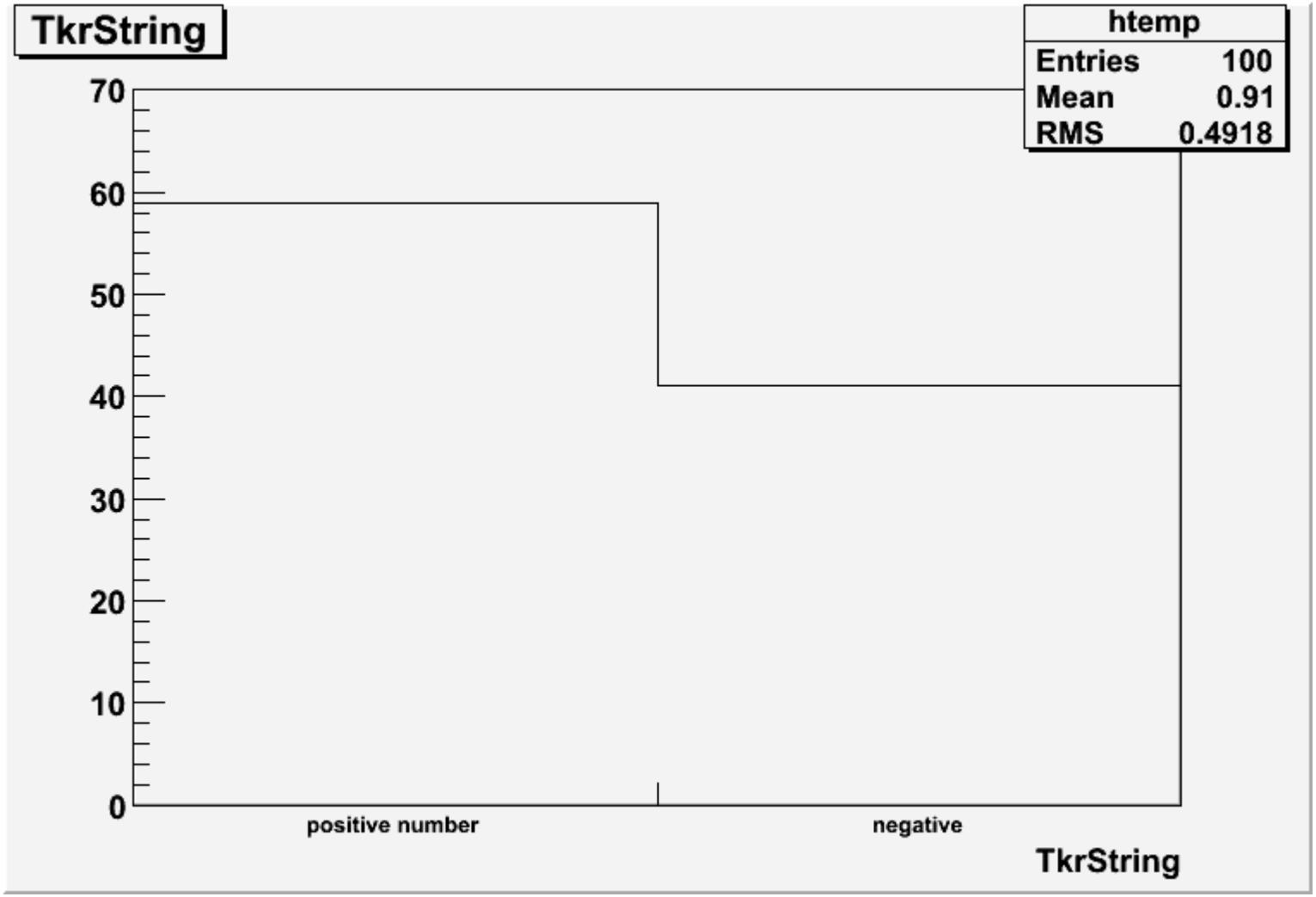
Code in XXXValsTool

```
...
namespace { const int _bufLen = 21;}
...
char Tkr_string[_bufLen];
...
addItem(“TkrString”, Tkr_string);
...
std::string tempStr;
tempStr = ((Tkr_1_xdir>0) ? "positive number" : “negative");
tempStr = tempStr.substr(0,_bufLen-1);
strcpy(Tkr_string, tempStr.c_str());
```

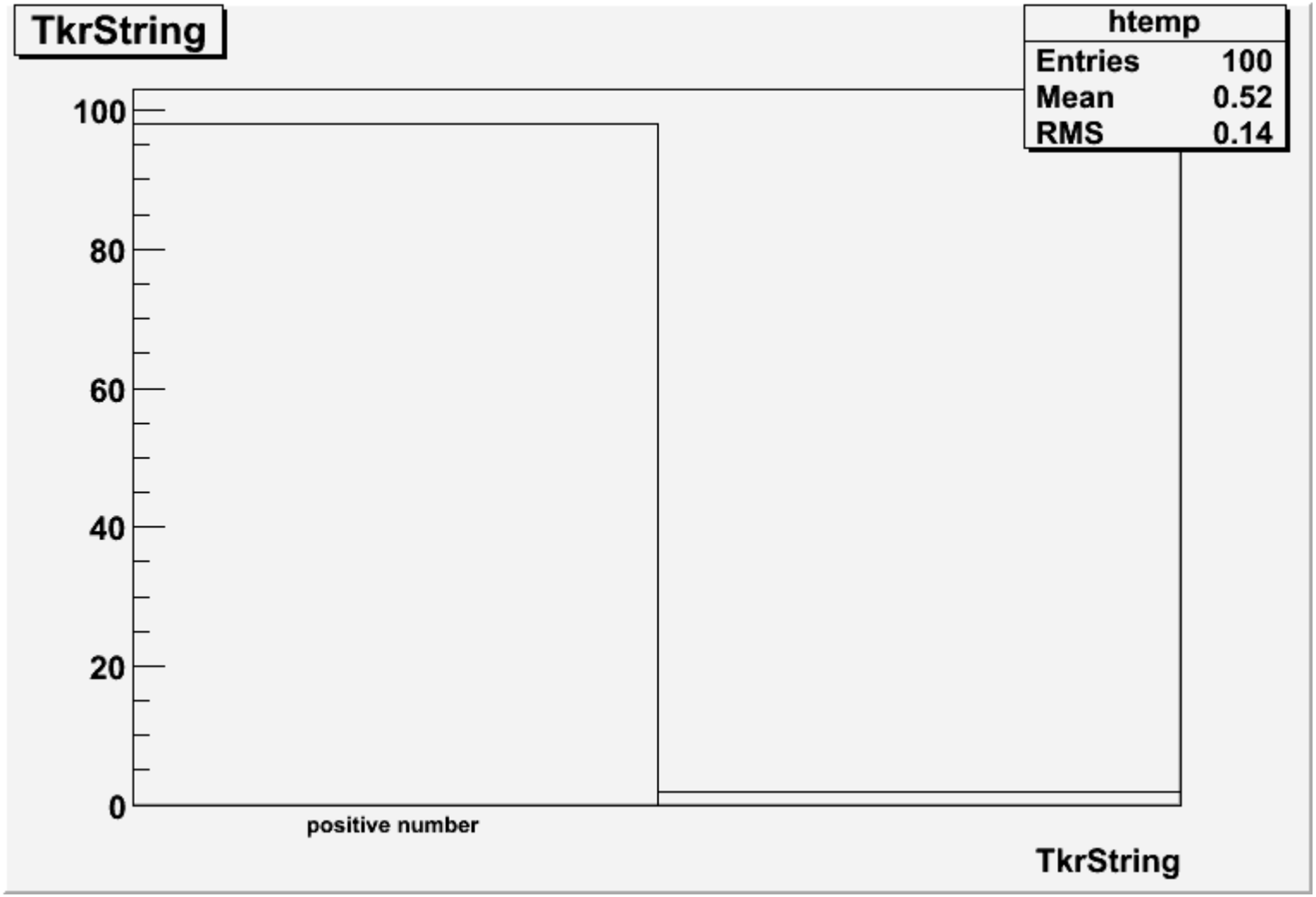
Ntuple variable



Watch Out!

```
...
namespace { const int _bufLen = 21;}
...
char Tkr_string[_bufLen];
...
addItem(“TkrString”, Tkr_string);
...
std::string tempStr;
tempStr = ((Tkr_1_xdir>0) ? "positive number" : “” );
tempStr = tempStr.substr(0,_bufLen-1);
strcpy(Tkr_string, tempStr.c_str());
```

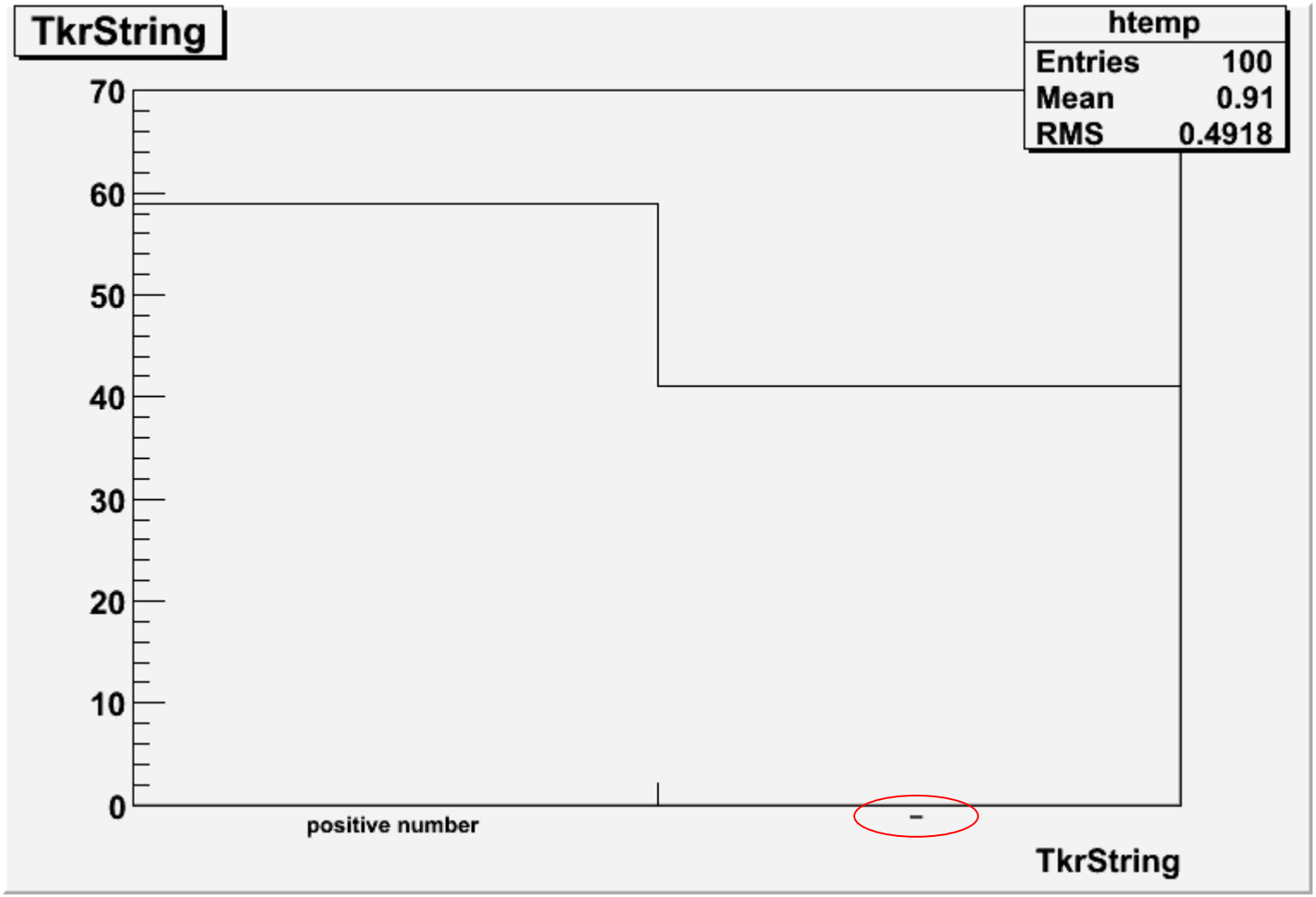
Blank variable doesn't work! (Root bug/feature)



Safe Default in zero(): “_”

```
...
namespace { const int _bufLen = 21;}
...
char Tkr_string[_bufLen];
...
addItem(“TkrString”, Tkr_string);
...
std::string tempStr;
tempStr = ((Tkr_1_xdir>0) ? "positive number" : “negative");
tempStr = tempStr.substr(0,_bufLen-1);
if(Tkr_1_xdir>0) strcpy(Tkr_string, tempStr.c_str());
```

Okay again!


TkrString
htemp
Entries 100
Mean 0.91
RMS 0.4918
70
60
50
40
30
20
10
0
positive number
-
TkrString

Root Code

```
...
root [0] f1 = TFile("char_merit_good.root");
root [1] t1 = (TTree*)f1->Get("MeritTuple");
root [2] c1 = TCanvas("c1", "c1");
root [3] c1->Divide(2,2);
root [4] c1->cd(1);
root [5] t1->Draw("TkrString");
root [6] c1->cd(2);
root [7] t1->Draw("Tkr1XDir");
root [8] c1->cd(3);
root [9] t1->Draw("Tkr1XDir", "TkrString==\"negative\"");
root [10] c1->cd(4);
root [11] t1->Draw("Tkr1XDir", "TkrString!=\"negative\"");
...
```

Plots using character variables