Subject: [SOLVED] PAnyDistribution broke in v5.40.5
Posted by Michael Kunkel on Wed, 26 Sep 2012 17:12:17 GMT
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Greetings,

I had ran a code of mine that originally used v5.40 on v5.40.5, and did not get the same behavior for PAnyDistribution.

I see no reason for it in the .cc or .h files. I also re-compiled v5.40.5 and got the same result.

Below is v.5.40 t-distribution.

Below is v.5.40.5 t-distribution with same code.

Here is the code used to generate

```
//#include "loadPluto.h";
//Program to generate multiple PLUTO root file
//Input of number of entries for specific energy is required (see list.dat)
//list.dat is a bremstrulung generated spectrum
//Author Michael C. Kunkel


#include "/u/home/mkunkel/PLUTO/pluto_v5.40.5/src/PParticle.h"
#include "/u/home/mkunkel/PLUTO/pluto_v5.40.5/src/PReaction.h"
#include "/u/home/mkunkel/PLUTO/pluto_v5.40.5/src/PBeamSmearing.h"
#include "/u/home/mkunkel/PLUTO/pluto_v5.40.5/src/PAnyDistribution.h"

/*
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PParticle.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PReaction.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PBeamSmearing.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PAnyDistribution.h"
*/
void Rho_T(Double_t energy, Int_t entries){
   //gSystem->Load("/u/home/mkunkel/PLUTO/pluto_v5.40.5/libPluto.so");


   cout.precision(2);
   char nam1[5] = "Rho_";
   char nam2[3] = "_t";
   char nam3[8] = "_T1 = ";
   char c[10];
   sprintf(c, "%3.2f",energy);
   char name[60];
   char setE[60];
   sprintf(name,"%s%s%s",nam1,c,nam2);
```

```
    sprintf(setE,"%s%s",nam3,c);
    cout<<name<<"\t"<<setE<<endl;

    PAnyDistribution* decay = new PAnyDistribution("t_slope","A function to add a new
t-slope");
    decay->Add("q,     parent");
    decay->Add("p,     daughter");
    decay->Add("rho0,  daughter");

    TH1F * cache  = new TH1F ("cache","Rho0 t cache",400,-4.0,.0);

    decay->AddEquation(cache,"beam = _parent->GetBeam(); beam->Boost(_parent) ; t1 =
(beam - [rho0])->Mag2(); _x = t1;");

    decay->AddEquation("_f = exp( 7.1*t1 );");

    decay->SetMaxEnhancementFactor(10);

    makeDistributionManager()->Add(decay);

    //Construct the reaction, as usual:

    PReaction my_reaction(setE,"g","p","p rho0 [pi+ pi-]",name);

    TH1F * histo1 = new TH1F ("histo1","rho0 t",100,-4,0);
    TH1F * histo3 = new TH1F ("histo3","cos theta of rho0",50,-1.,1.);

    my_reaction.Do(histo1,"beam2 = [g+p]->GetBeam(); t12 = (beam2 - [rho0])->Mag2(); _x =
t12;");
    my_reaction.Do(histo3,"_rho=[rho0]; _rho->Boost([g+p]); _x= cos(_rho->Theta())");

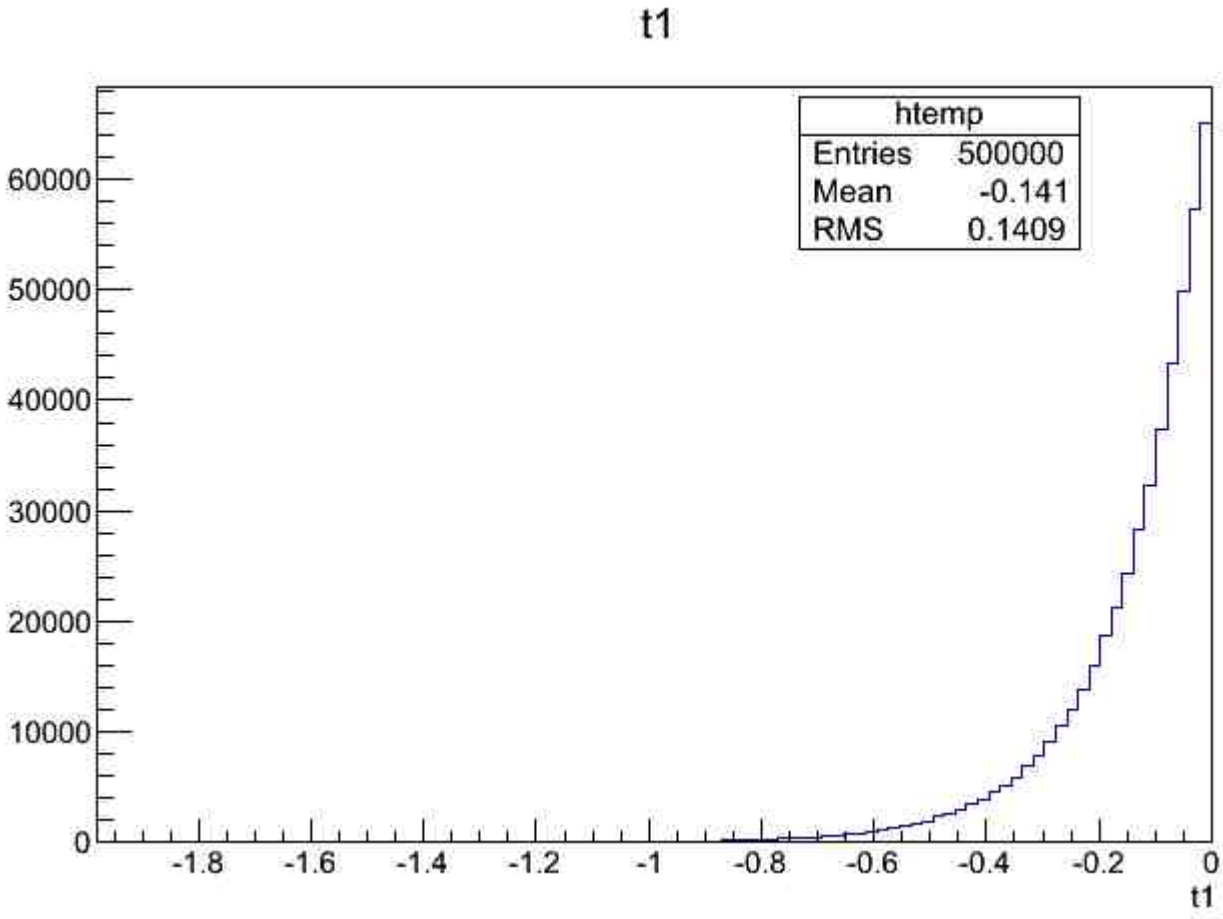

    my_reaction.Print();   //The "Print()" statement is optional

    //Make a dummy loop to fill the AnyDistribution with some statistics:
    my_reaction.Preheating(100);

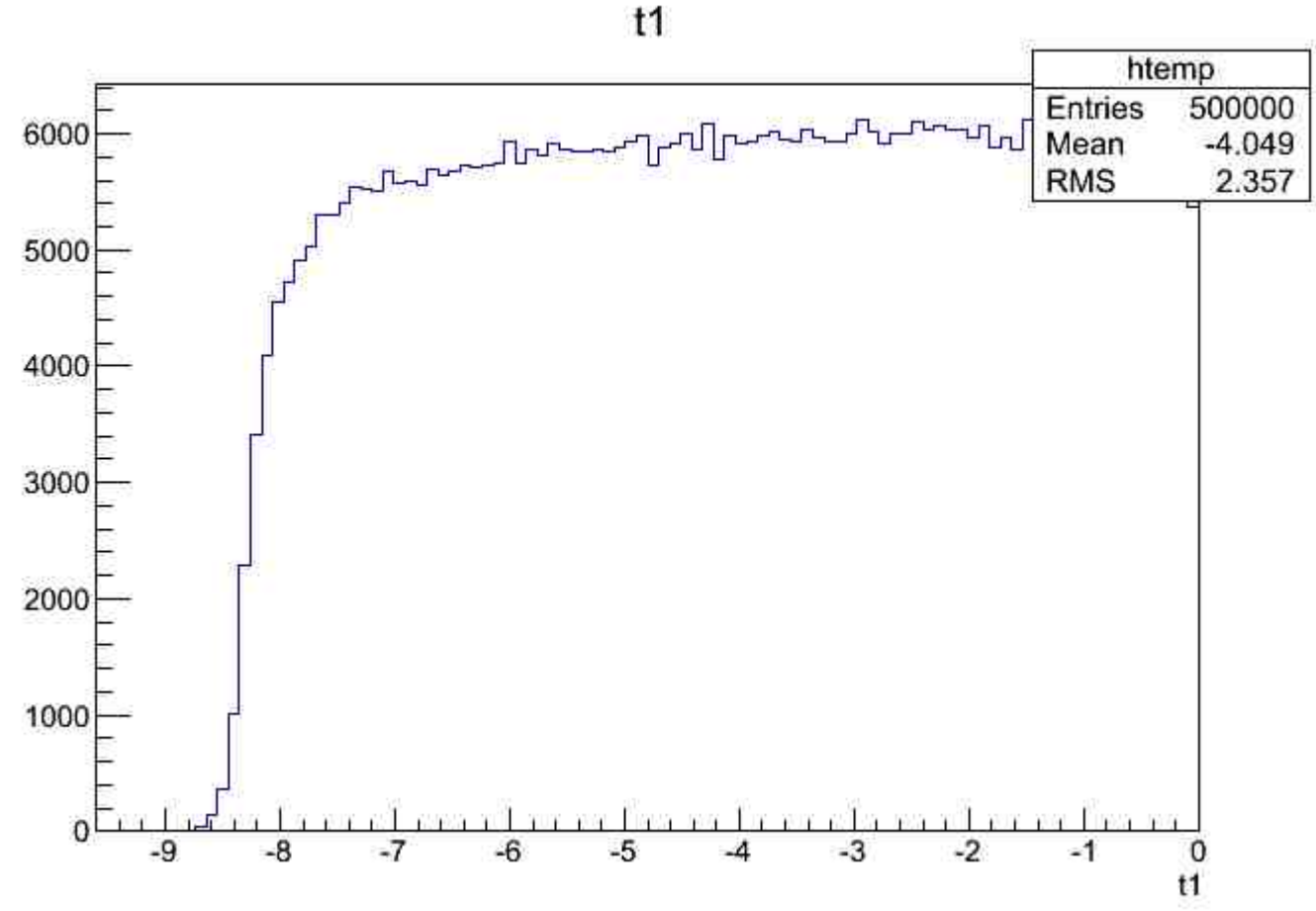
    my_reaction.Loop(entries);
}
```

File Attachments

1) t_v_5_40.jpg, downloaded 2428 times



2) t_v_5_40_5.jpg, downloaded 2463 times



Subject: Re: PAnyDistribution broke in v5.40.5
Posted by Ingo Fröhlich on Wed, 26 Sep 2012 20:23:23 GMT
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Thank you very much for the feedback, it is always very important to know if something breaks. Maybe I will add your macro to the test macros, its a complex example which is sensitive to many possible problems.

Will try to look into the problem asap.

Subject: Re: PAnyDistribution broke in v5.40.5
Posted by Ingo Fröhlich on Thu, 27 Sep 2012 13:45:42 GMT
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I have found a bug (it was a serious bug in the scripting parser, namely the -> was not recognized, so thank you very much)

v5.40.6 is uploaded. I have added the t-slope macro to the test functions (at the very bottom), with low statistics (due to computing time) but I think enoght to check the basic functionality