Hmm, I did a quick test with the recent version (v5.40.1) using the following macro:

```
{

   double ebeam_min = 1.1725;
   double ebeam_max = 5.44575;
   PBeamSmearing *beam_smear = new PBeamSmearing("beam_smear", "Beam smearing");

   TF1* beam_smear_fn = new TF1("beam_smear_fn", "-3.82136e-03 + 7.24636e-02/x",
ebeam_min, ebeam_max);

   beam_smear->SetReaction("g + p");
   beam_smear->SetMomentumFunction(beam_smear_fn);
   makeDistributionManager()->Add(beam_smear);

   TH1F * histo1 = new TH1F ("histo1","c.m.",100,1.,4.);

   PReaction my_reaction("_P1 = 2.2","g","p","p eta [dilepton [e+ e-] g]","eta_dalitz",1,0,0,0);
   my_reaction.Do(histo1,"_x = [g+p]->M()");

   my_reaction.Print();
   my_reaction.Loop(10000);

}
```

The output is as follows:

```
 Reaction of 7 Particles interacting via 3 Channels
   Reaction Particles:
     0. quasi-particle (g beam and p target)
     1. p
     2. eta
     3. dilepton
     4. g
     5. e+
     6. e-
   Reaction Channels:
     1. g + p --> p + eta
       Interaction model(s):
       [beam_smear] Beam smearing
       [g + p_fix_p_eta] 2-body fixed mass, partial width {/}
       [g + p_genbod_p_eta] Pluto build-in genbod {/genbod}
     2. eta --> dilepton + photon (Dalitz)
       Interaction model(s):
       [eta_dalitz] Dalitz decay {/}
       [eta_genbod_g_dilepton] Pluto build-in genbod {/genbod}
     3. dilepton --> e+ + e-
       Interaction model(s):
```

[dilepton_fixed_e-_e+] Fixed product masses {/}
    [dilepton_genbod_e-_e+] Pluto build-in genbod {/genbod}
    [eta_dilepton_helicity] Helicity angle of the dilepton decay of eta
  Bulk Classes:
    Epilogue: <PProjector>
  Output Files:
    Root : eta_dalitz.root, all particles on file.
PReaction: calculating widths in PData...
Info in <PUtilsREngine::PUtilsREngine>: Random seed set to 60606
 20% done in 1.261318 sec
 40% done in 1.520687 sec
 60% done in 1.780155 sec
 80% done in 2.042362 sec
 100% done in 1.300976 sec
 CPU time 1.300000 sec

Are you using maybe an older version?

c.m.