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Subject: eta prime dalitz

Posted by [Michael Kunkel](#) on Wed, 12 Jun 2013 00:46:54 GMT

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Greetings again,

When I attempt to run an etaPrime simulation, namely the dalitz decay of etaprim. I get error  
Quote:"Error in <PChannel::Initialization>: No database entry for:

eta' --> dilepton + g"

But if I look in PDalitzDecay.cc eta' is listed.

What our end goal is is to simulate the etaprim dalitz and also the etaprim pi+ pi- dilepton.

Also oddly enough if I try to set etaprim dalitz to QED =1

((PDalitzDecay \* )makeDistributionManager()->GetDistribution("eta'\_dalitz"))->SetUseQED(1);

This also produces error. Quote:Error: illegal pointer to class object

(PDalitzDecay\*)makeDistributionManager()->GetDistribution("eta'\_dalitz ")

Here is a working macro. I know this works because I can replace eta' with eta and all is well.

```
void SIMULATE_EtaPrime_Dalitz(){

    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", "1./x", ebeam_min, ebeam_max);

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

    (((PDalitzDecay *
makeDistributionManager()->GetDistribution("eta'_dalitz"))->SetUseQED(1);

    gROOT->Reset();
    //PUtils::SetSeed(123); //this is to have a fixed SEED. By default, the systime is used....

    PReaction my_reaction("_P1 = 2.2","g","p","p eta' [dilepton [e+ e-] g]","etaP_Aphi",1,0,0,0);

    my_reaction.Loop(1500);

}
```