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Subject: [SOLVED] Beam Smear and Cross Sections  
Posted by [Michael Kunkel](#) on Tue, 24 Jul 2012 19:20:27 GMT  
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Hello again,

Another question about beam smearing.

When I apply a beam smear of a reaction, does pluto preserve the production cross section for that specific beam energy?

I have investigated the output of the code below, and it seems the answer is no. So I ask the forum in case I am coding incorrectly.

```
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);

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

Thanks  
Michael

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