```
void resolution(Double_t res=0.1, Int_t nGen=1E6){



  TString histName="h";
  TH1F *h[2];
  for(Int_t i=0;i<2;i++){
    h[i] =new TH1F(histName+i,"test histogram",90,0,3);
//cosmetics
    h[i]->SetLineColor(1);
    h[i]->GetYaxis()->SetTitleOffset(1.2);
    h[i]->GetXaxis()->SetTitleSize(0.04);
    h[i]->GetYaxis()->SetTitleSize(0.04);
    h[i]->GetXaxis()->SetTitle("x after Resolution Effect");
    h[i]->GetYaxis()->SetTitle("Entries");
  }

  h[0]->SetFillColor(4);
  h[1]->SetFillColor(2);

//first case: fixed value smeared
  Double_t fixedValue= 1.5;
  for(Int_t i=0;i<nGen;i++)h[0]->Fill(gRandom->Gaus(fixedValue,res));
//second case: Uniform distribution smeared
  for(Int_t i=0;i<nGen;i++)h[1]->Fill(gRandom->Gaus(gRandom->Uniform(1,2),res));

  TCanvas *c1 = new TCanvas("c1","Resolution Effects, Examples",200,10,600,400);
  c1->Divide(1,2);
  for(Int_t i=0;i<2;i++){
    c1->cd(i+1);
    h[i]->Draw("H");
    h[i]->Draw("E,SAME");
  }
}
```