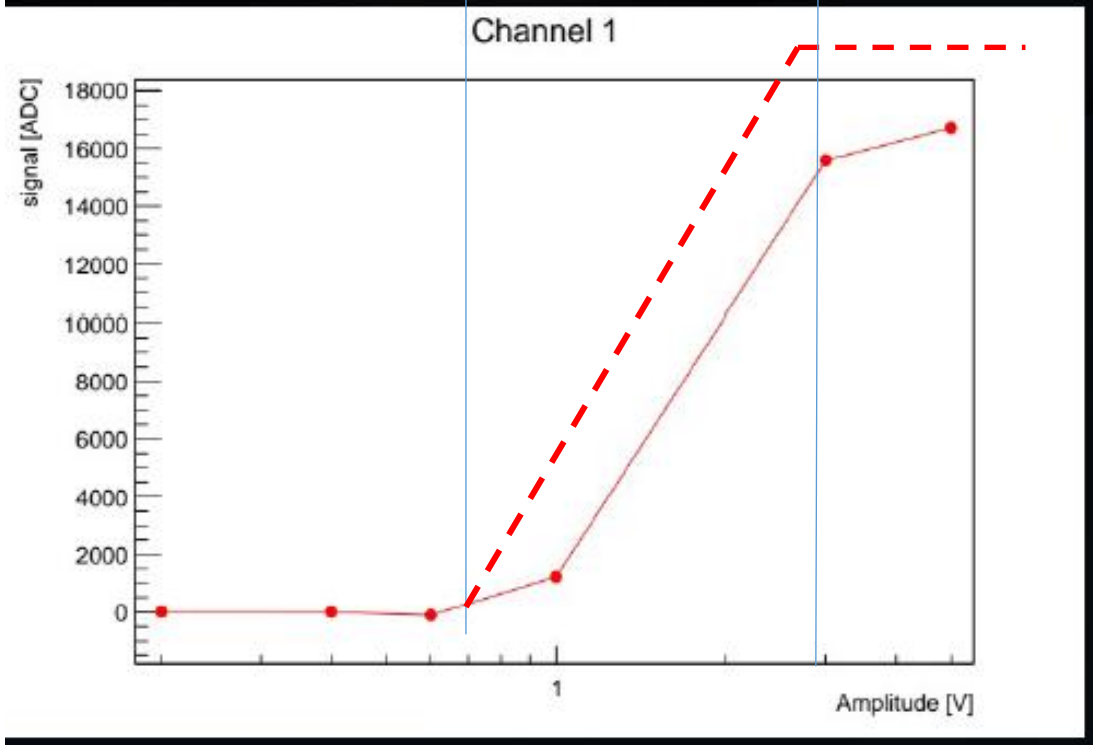
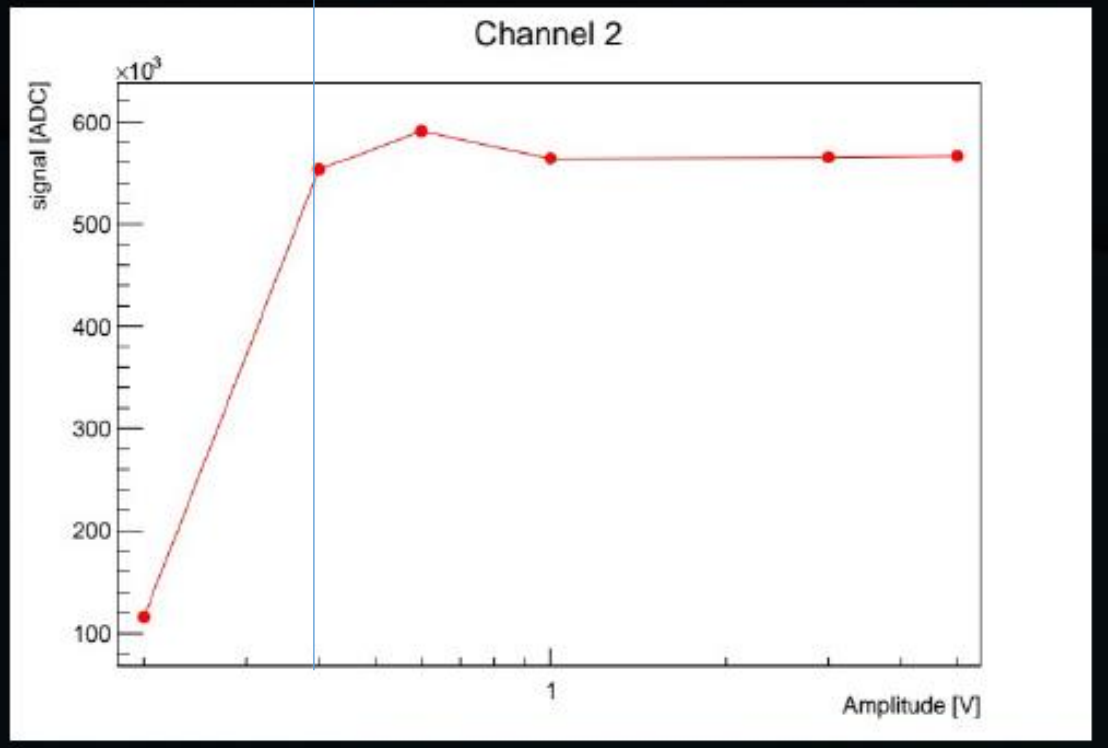
Injection start for Channel2>0.7 Volt

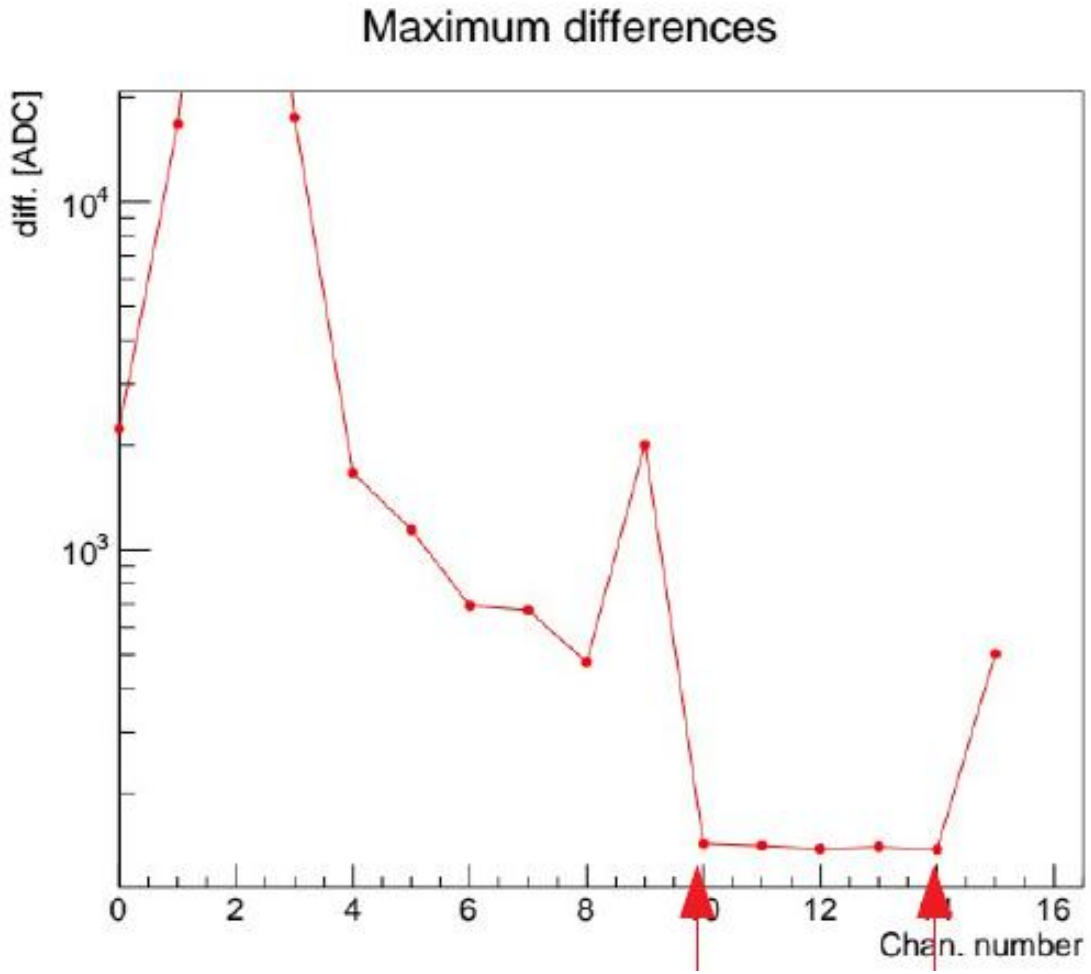
Plateau reached at 2 Volt

Saturation at 0.4 Volt – 580.000 ADC

With kapton cable.







GeV per ADC channel

GeVsuADC= Ethreshold/580000.

GeV per Volt

GeVsuVolt= Ethreshold/0.4

Energy in a single cube at which the injection start

EDepSatCross=0.7*GeVsuVolt=437 TeV

(for Ethreshold = 250 TeV)

EDepSatCross=218 TeV

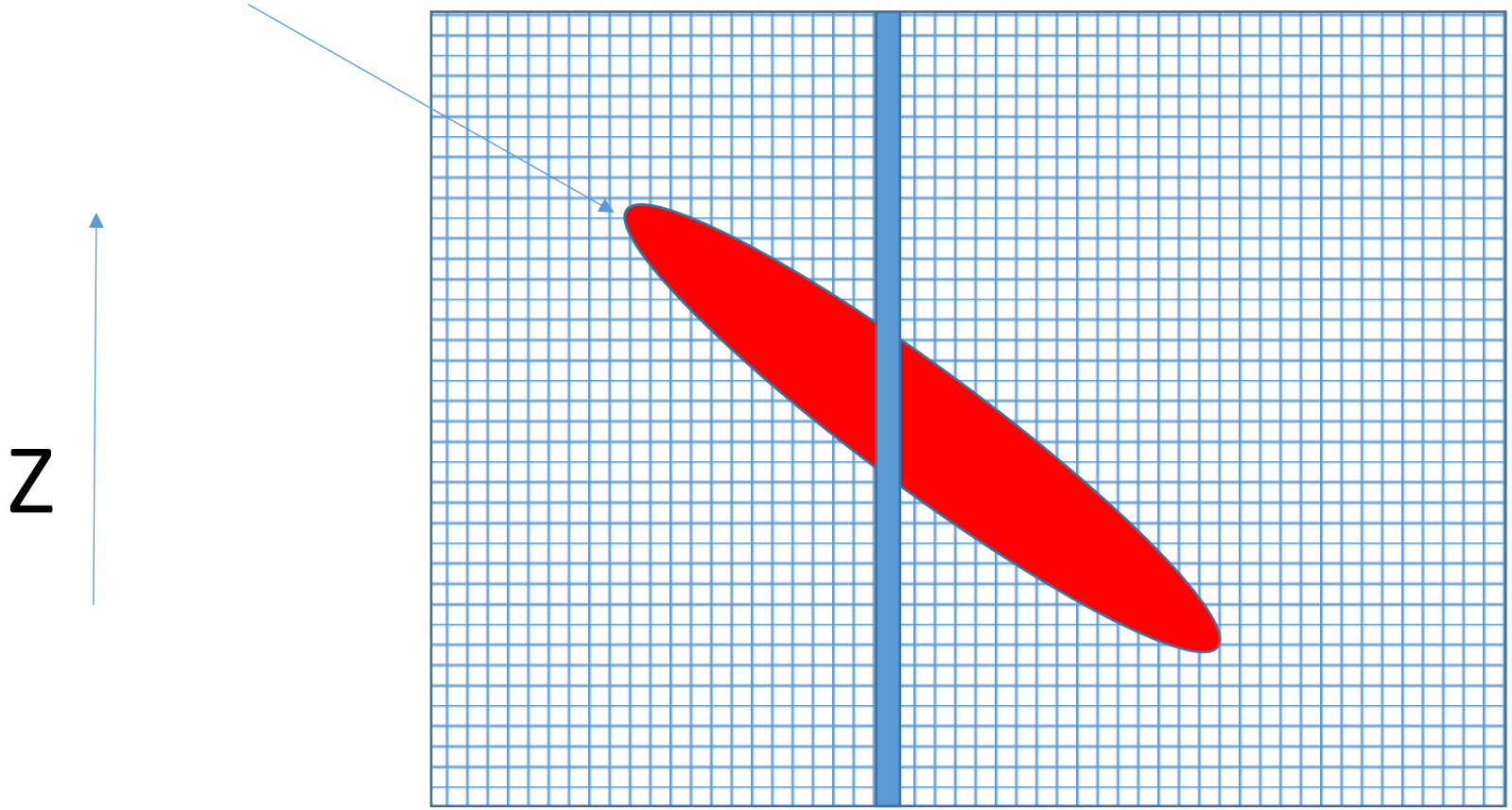
(for Ethreshold = 125 TeV)

Energy at which the injection reach plateau

EDepPlateau=2*GeVsuVolt=1,2 PeV

(for Ethreshold = 250 TeV)

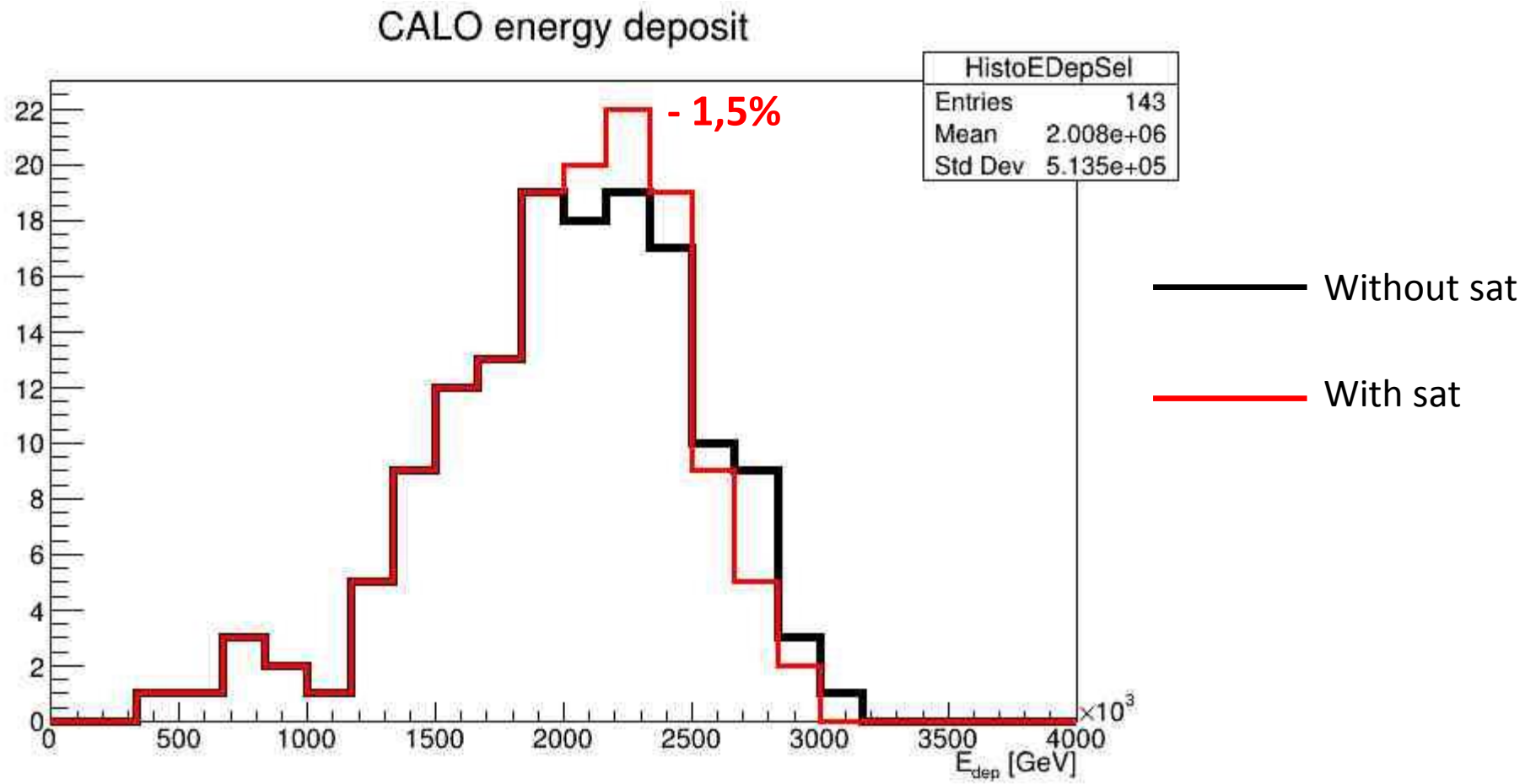
……



If the injected charge goes in a cube ‘without signal’ or is greater than 10*signal the Channel is ‘blinded’ , its signal content is set = 0

5 PeV protons - saturation Threshold =250 TeV

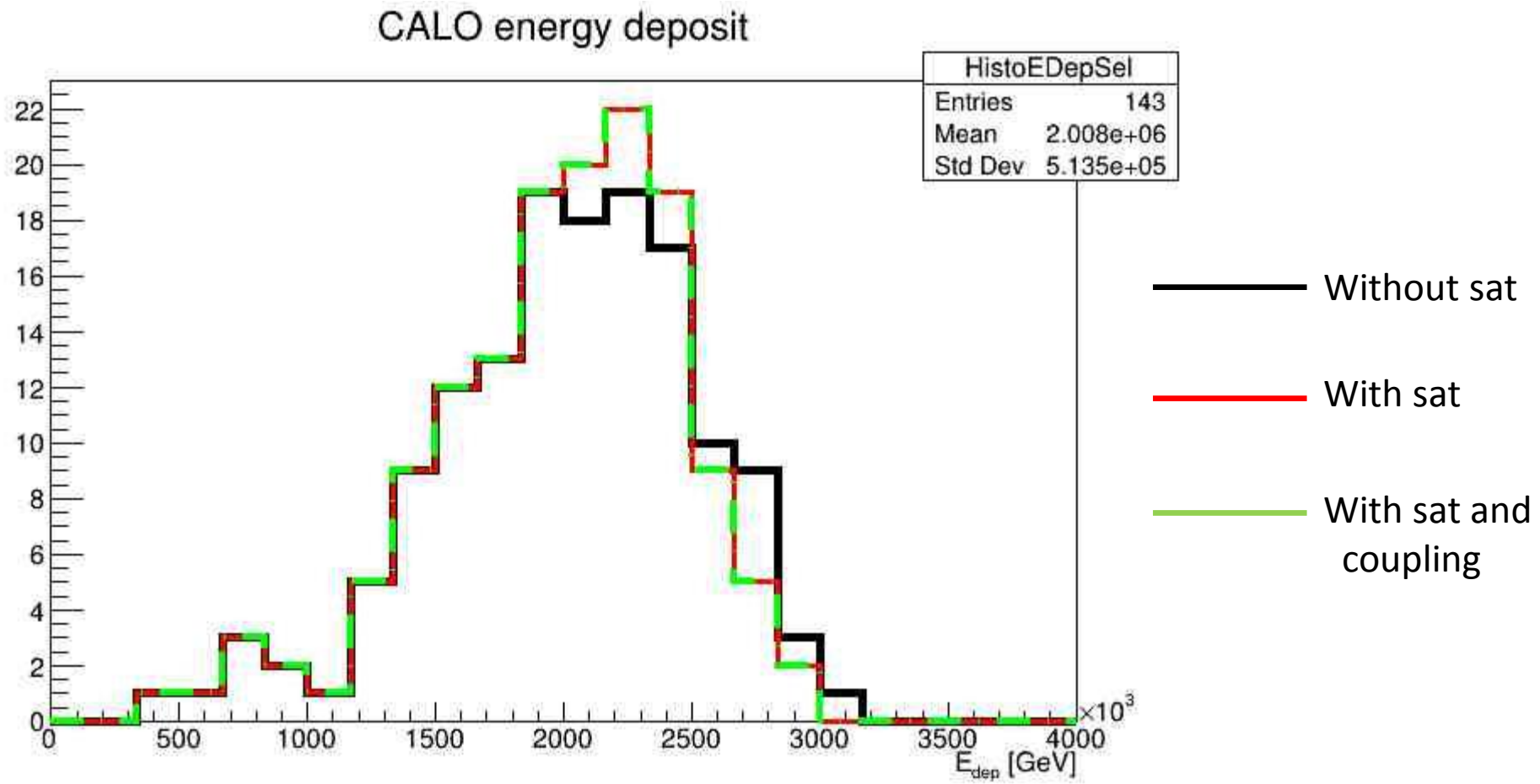
No Coupling



Electrons never saturate the small Photodiodes

5 PeV protons - saturation Threshold =250 TeV

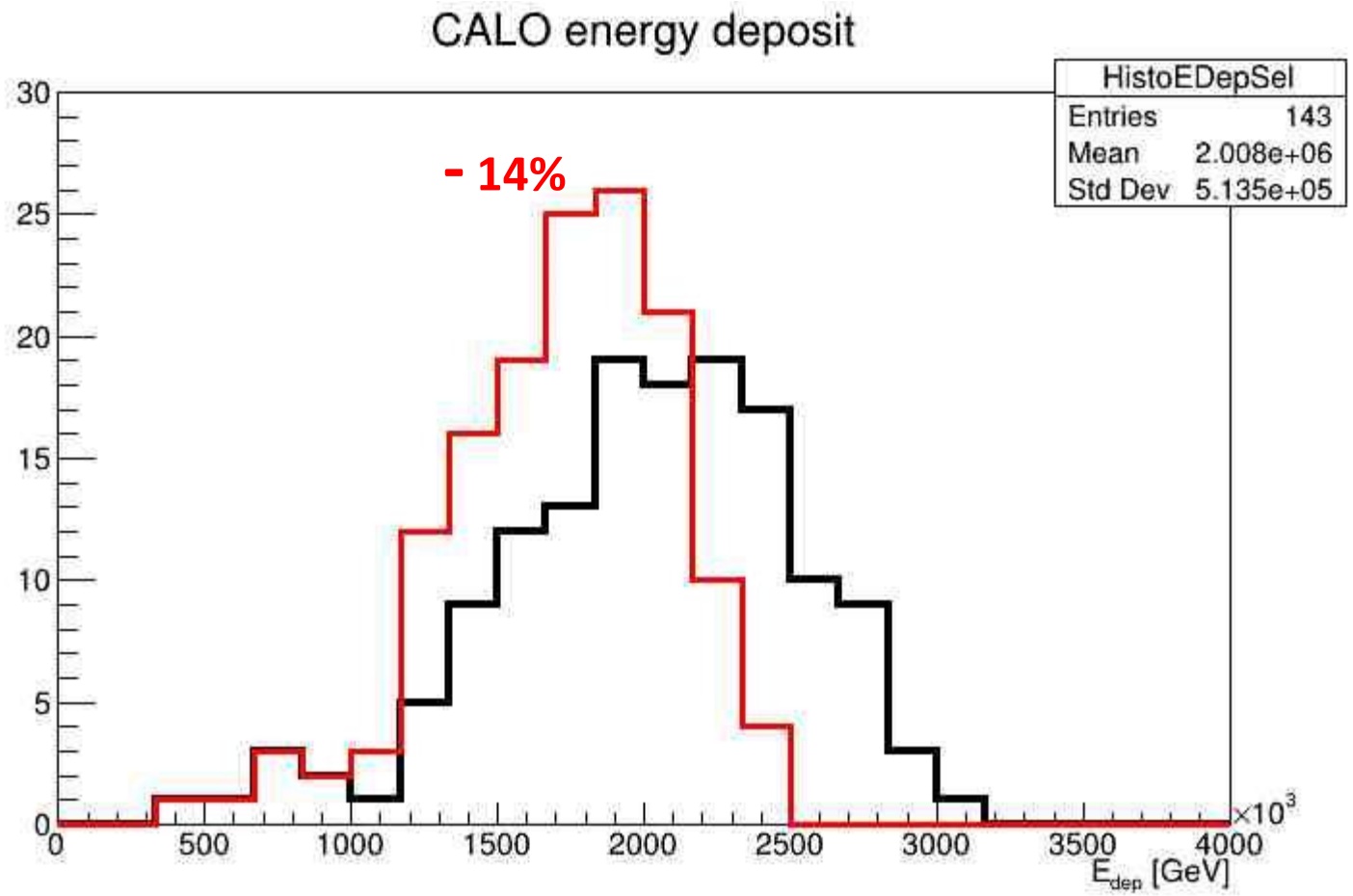
with Coupling



NO CUBE GOES ABOVE EDepSatCross=0.7*GeVsuVolt=437 TeV

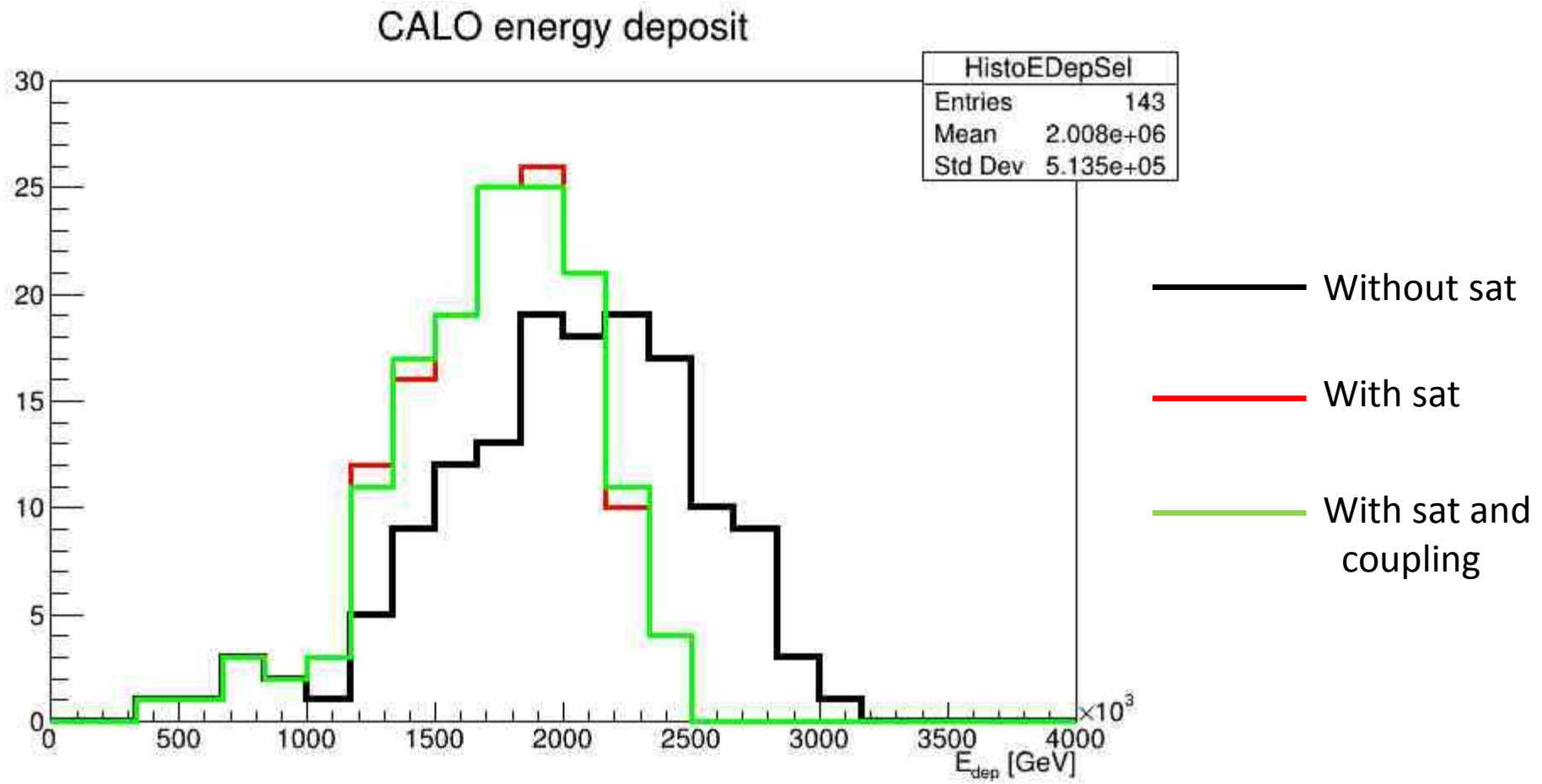
5 PeV protons - saturation Threshold =125 TeV

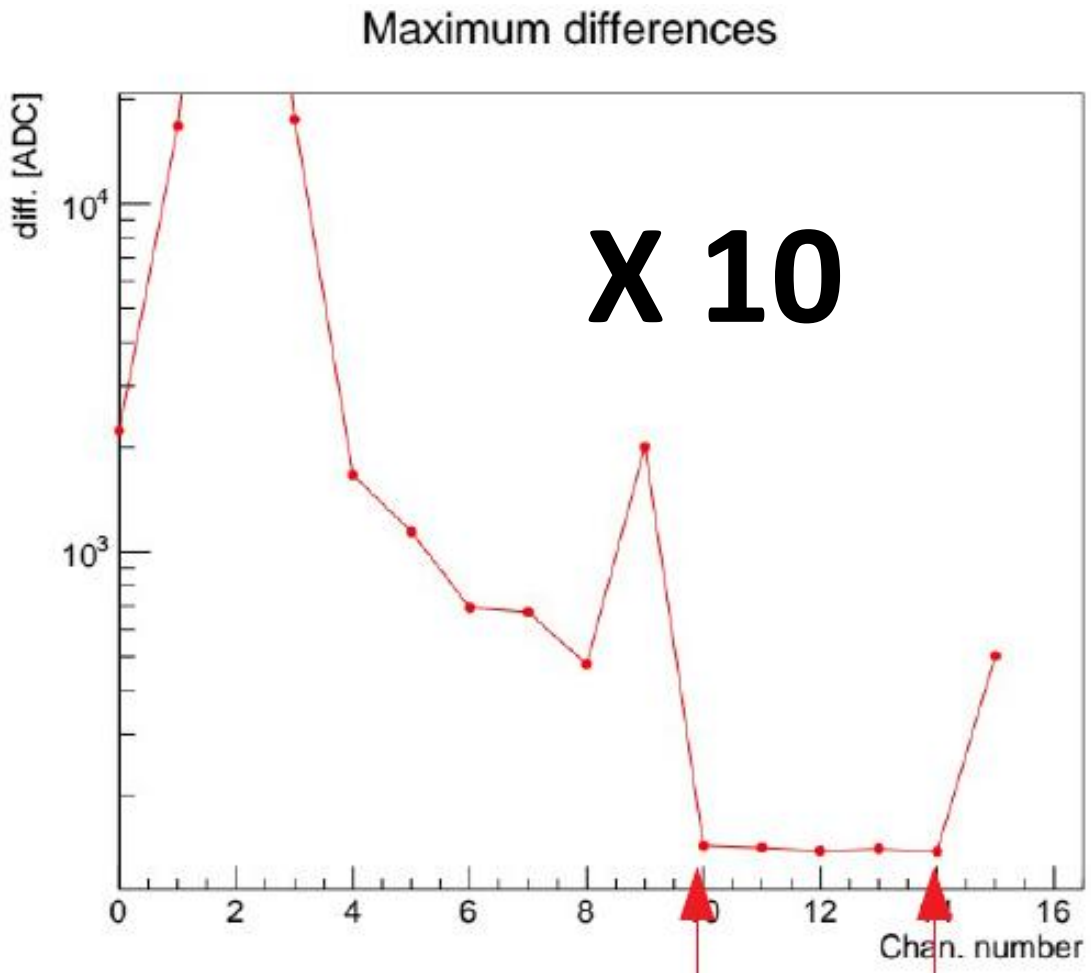
No Coupling



5 PeV protons - saturation Threshold =125 TeV

with Coupling





GeV per ADC channel

GeVsuADC= Ethreshold/580000.

GeV per Volt

GeVsuVolt= Ethreshold/0.4

Energy in a single cube at which the injection start

EDepSatCross=0.7*GeVsuVolt=437 TeV

(for Ethreshold = 250 TeV)

EDepSatCross=218 TeV

(for Ethreshold = 125 TeV)

Energy at which the injection reach plateau

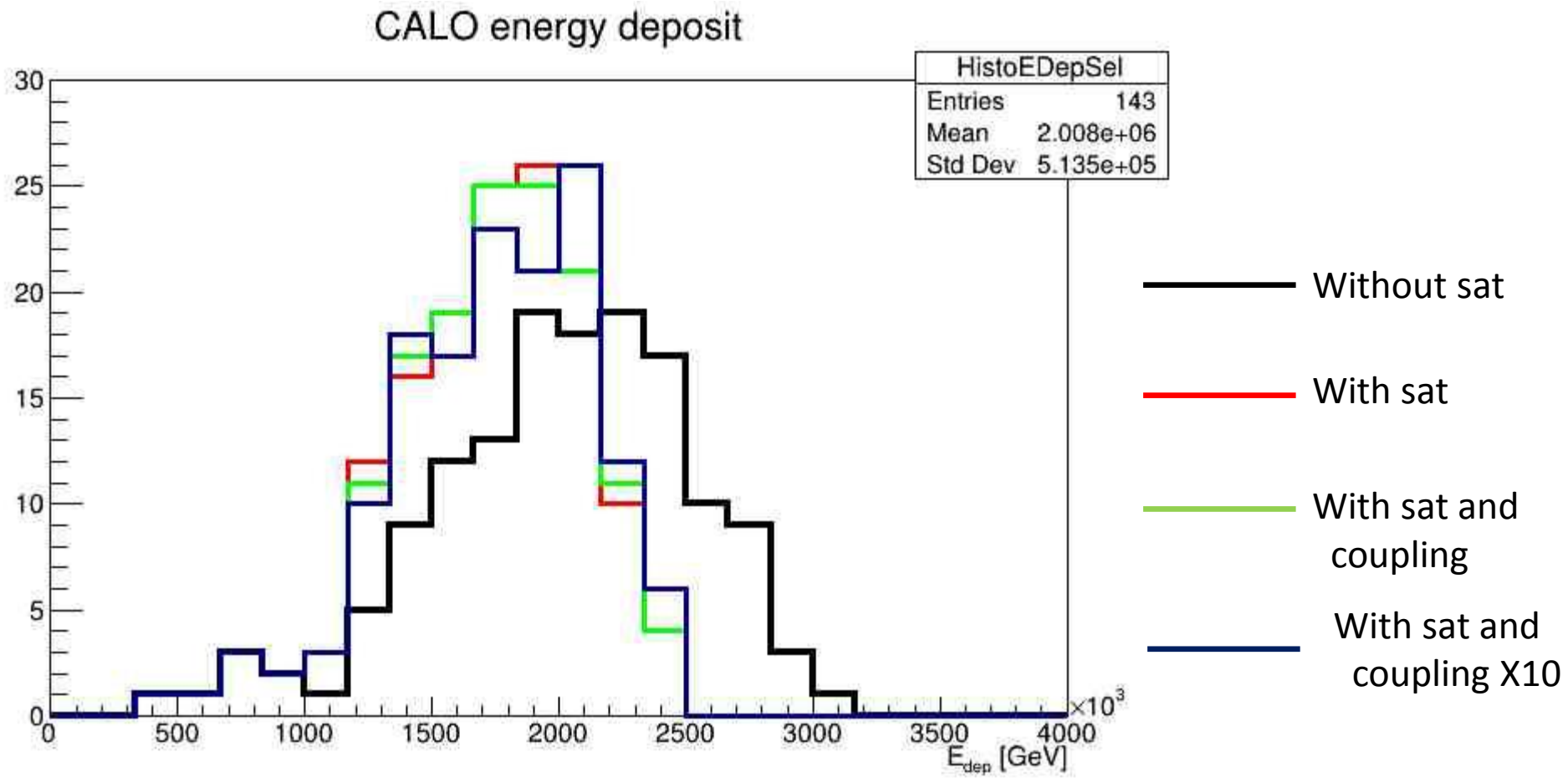
EDepPlateau=2*GeVsuVolt=1,2 PeV

(for Ethreshold = 250 TeV)

……

5 PeV protons - saturation Threshold =125 TeV

with Coupling

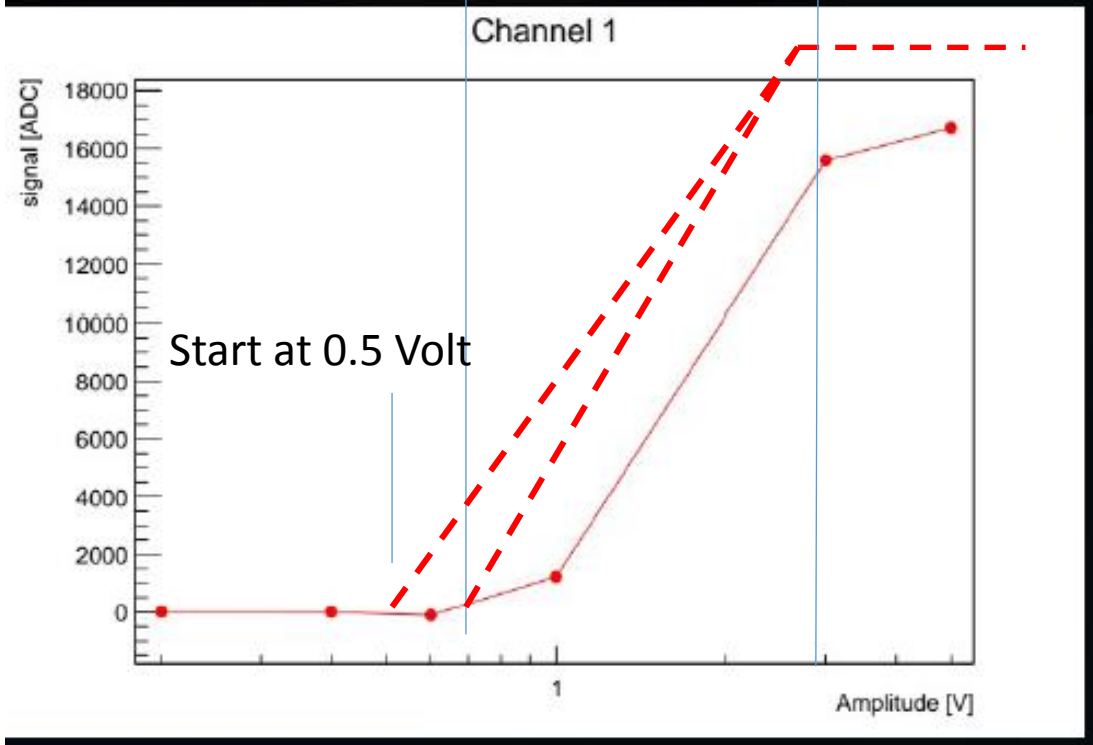


Injection for Channel2>0.7 Volt

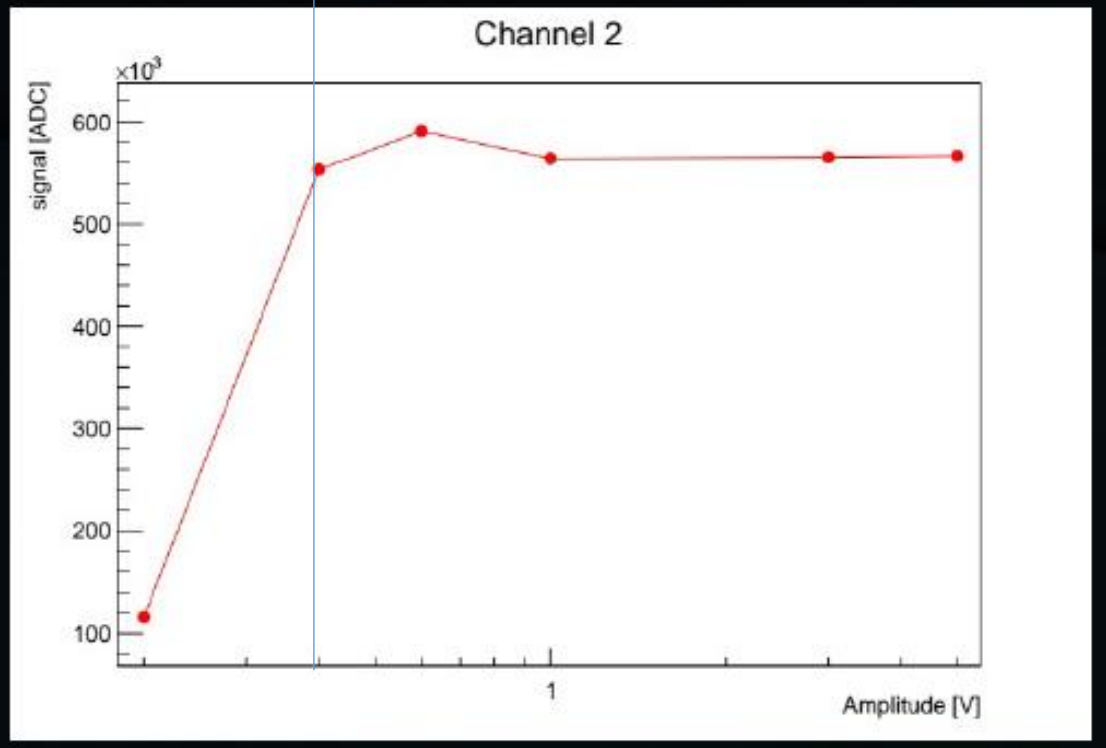
Plateau reached at 2 Volt

Saturation at 0.4 Volt – 580.000 ADC

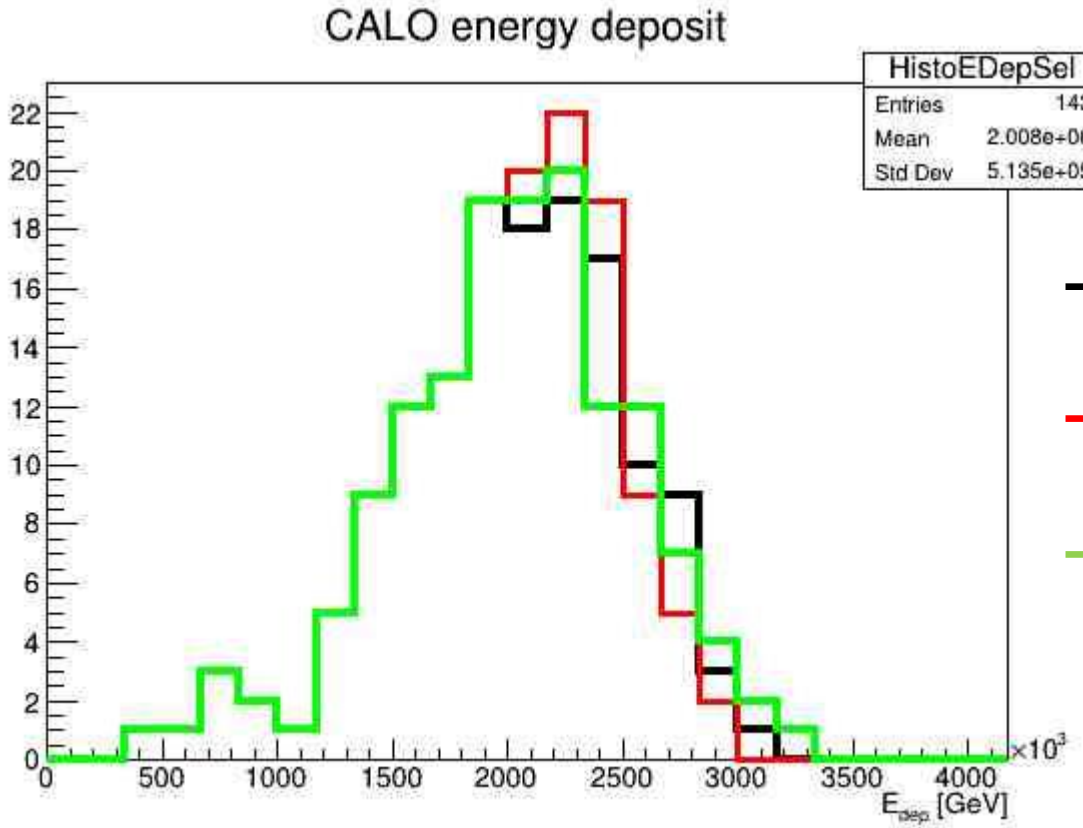
With kapton cable.



Start at 0.5 Volt



5 PeV protons - saturation Threshold =250 TeV
with Coupling

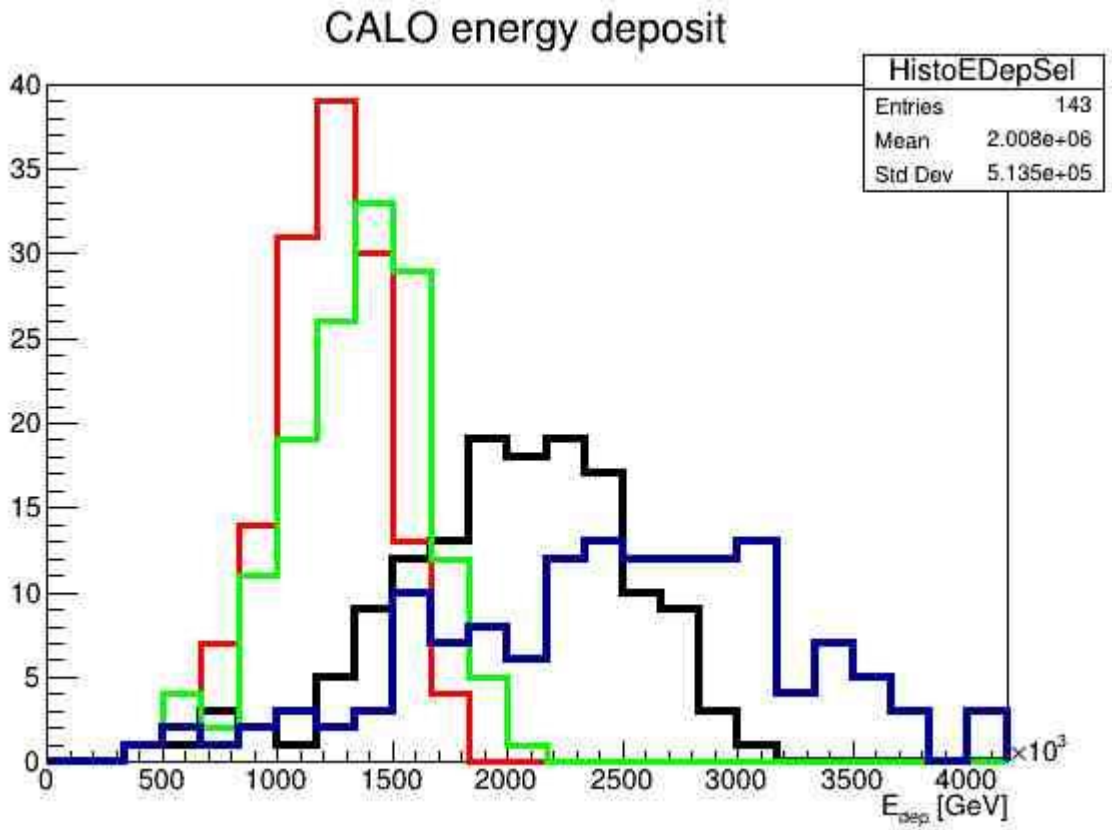


Without sat

With sat -1,5%

With sat and coupling x10 Start at 0.5 Volt +0,3%

5 PeV protons - saturation Threshold =50 TeV



Without sat

With sat

With sat and coupling X10

With sat and coupling X100