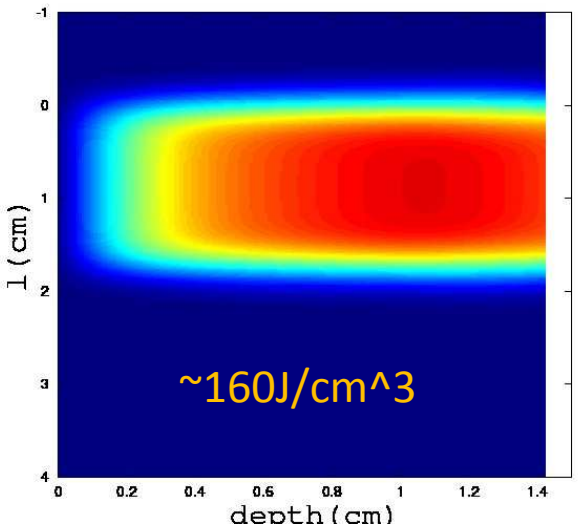
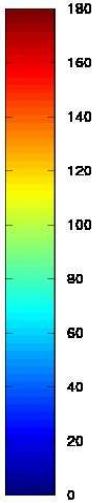
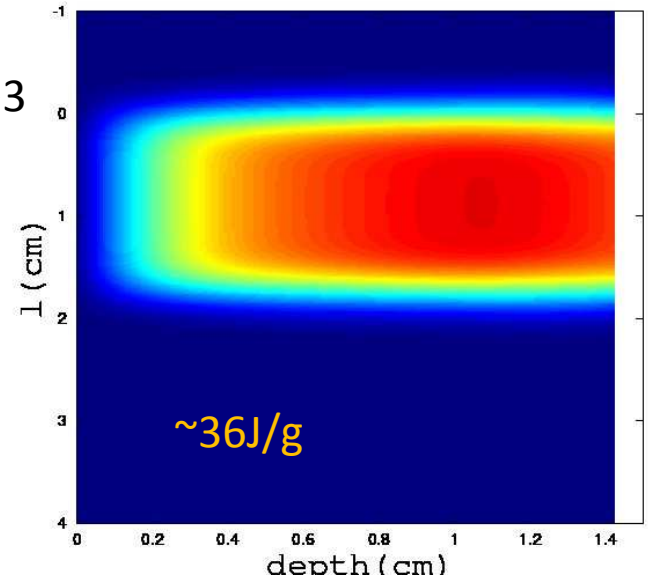
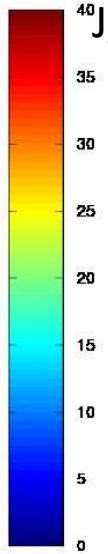
150GeV and 250GeV,
the effect of energy deposition

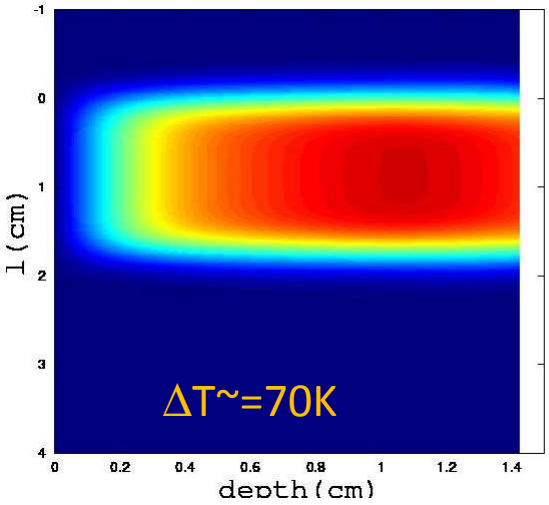
Energy density and estimated temperature change after 500 bunchs. RDR undulator, 150GeV drive , AMD Immersed 0.4X0 Ti target. 2e10 e+ assume captured

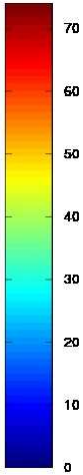






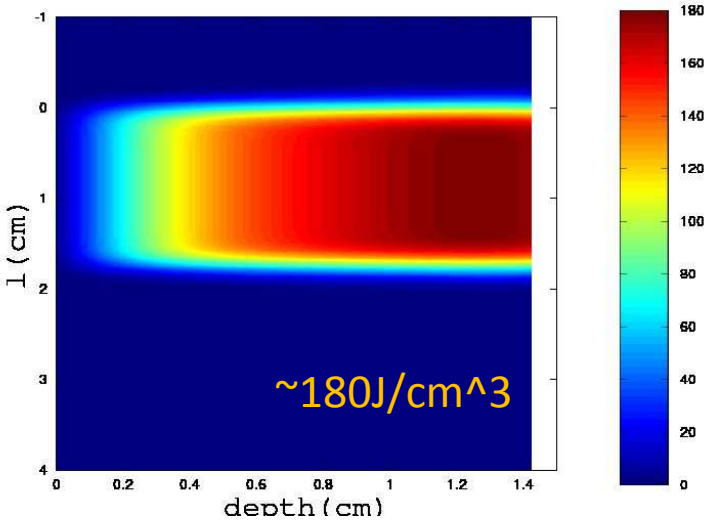


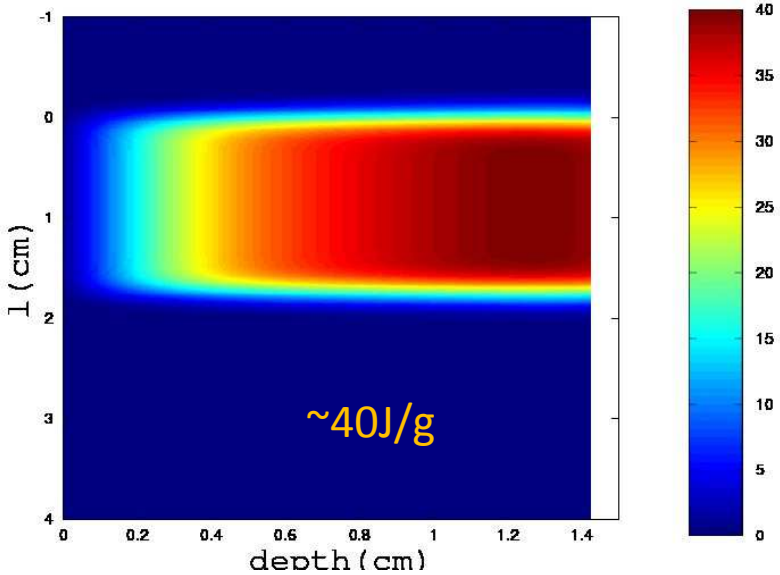


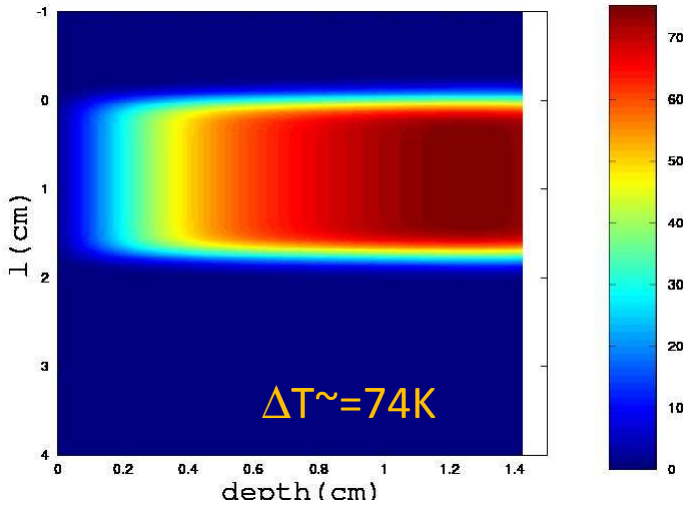


The 2m diameter target wheel is rotating at 900RPM.

Energy density and estimated temperature change after 500 bunchs. RDR undulator, 250GeV drive , AMD Immersed 0.4X0 Ti target. 2e10 e+ assume captured



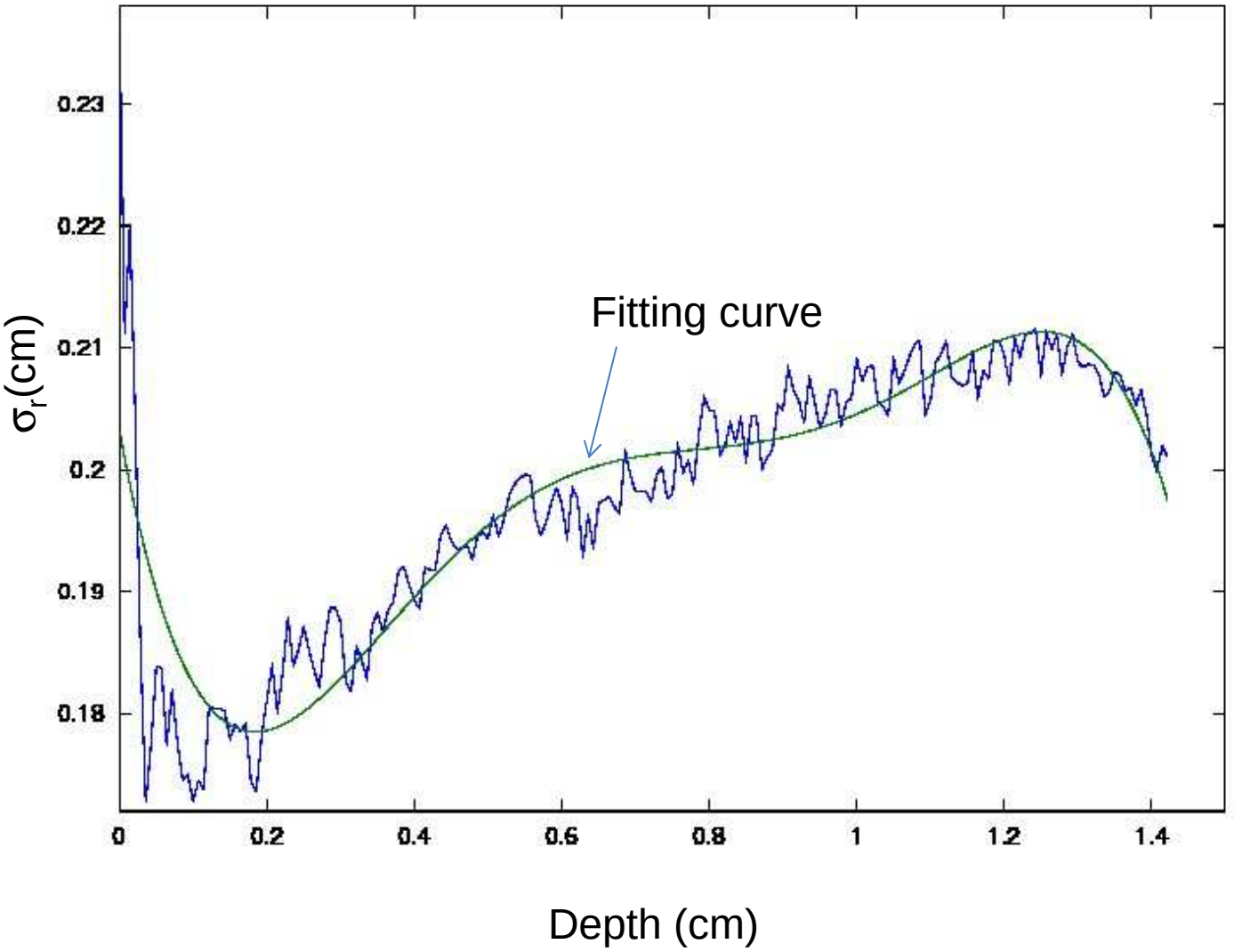




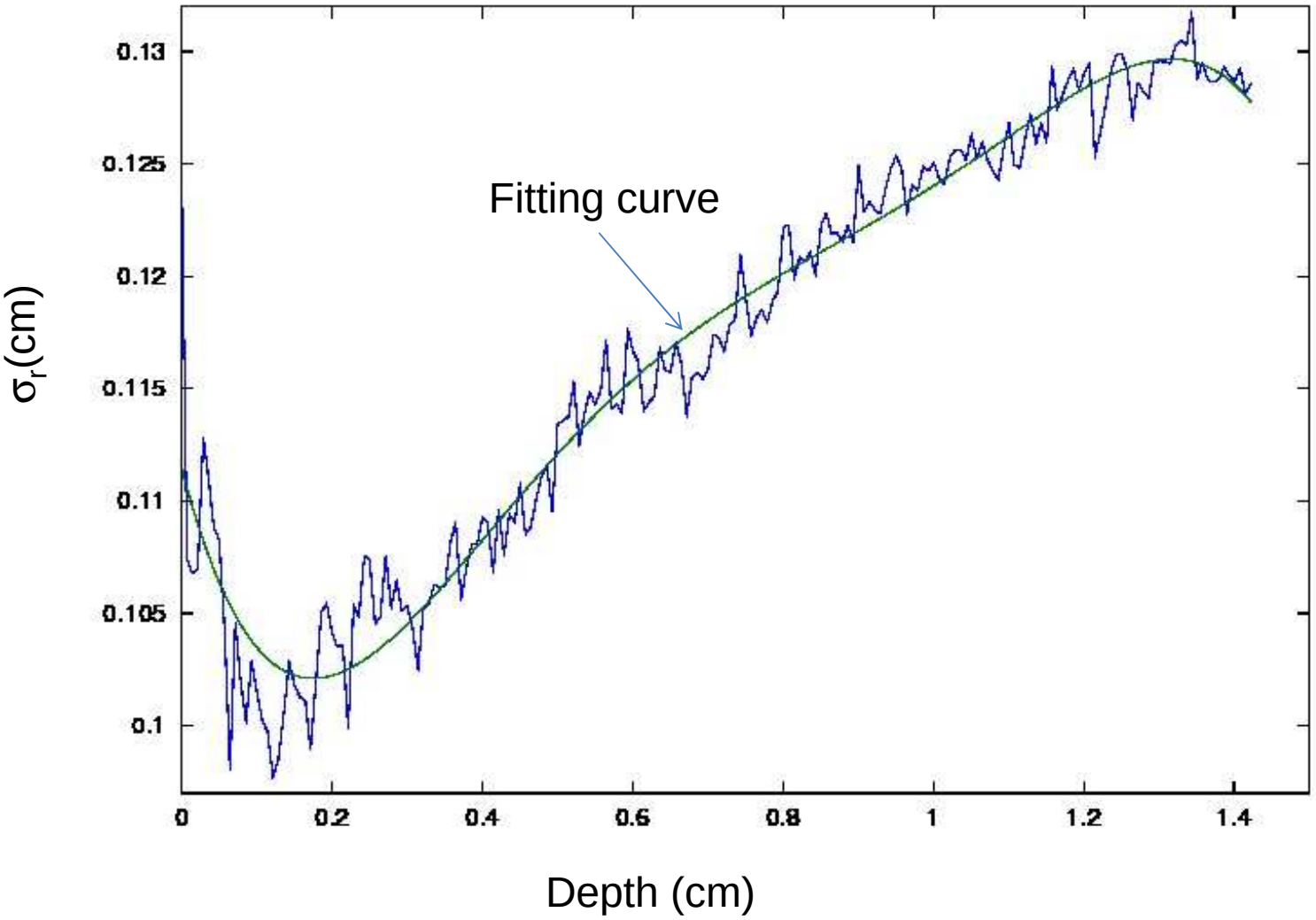
The 2m diameter target wheel is rotating at 900RPM.

Even though the energy density per bunch is ~60% higher for 250GeV drive beam when comparing with 150GeV drive beam, the accumulated effect is not significant due to the smaller spot size from 250GeV drive beam.

σ_r of deposit energy profile
150GeV drive beam, RDR undulator



σ_r of deposit energy profile
250GeV drive beam, RDR undulator



Longitudinal profile of energy deposition, RDR undulator