Shower Sizes in Tungsten

W HCal Prototype Workshop, LAPP, Annecy
September 24, 2009

Christian Grefe

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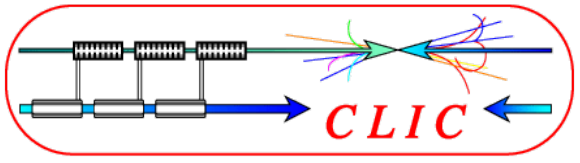

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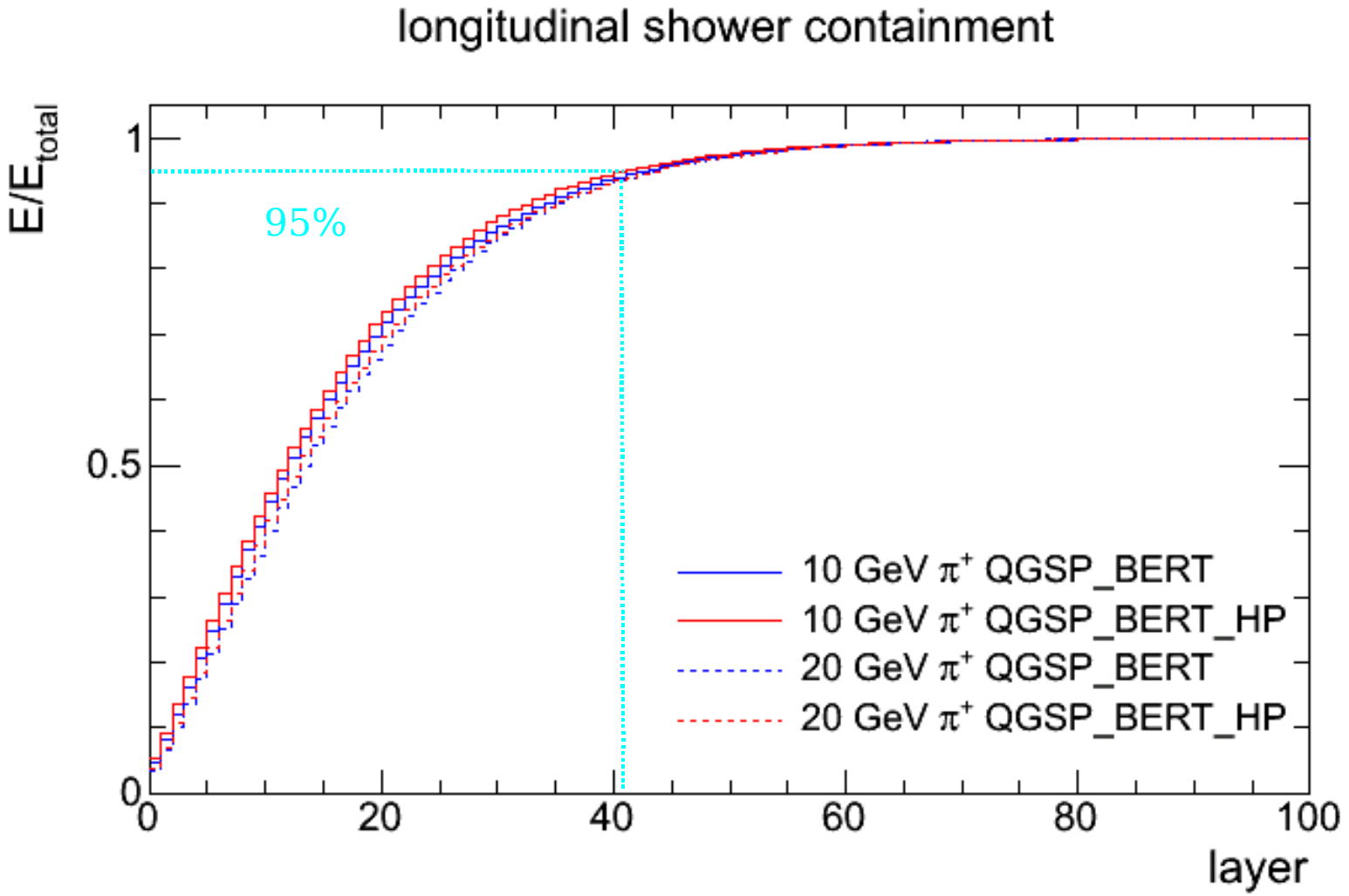
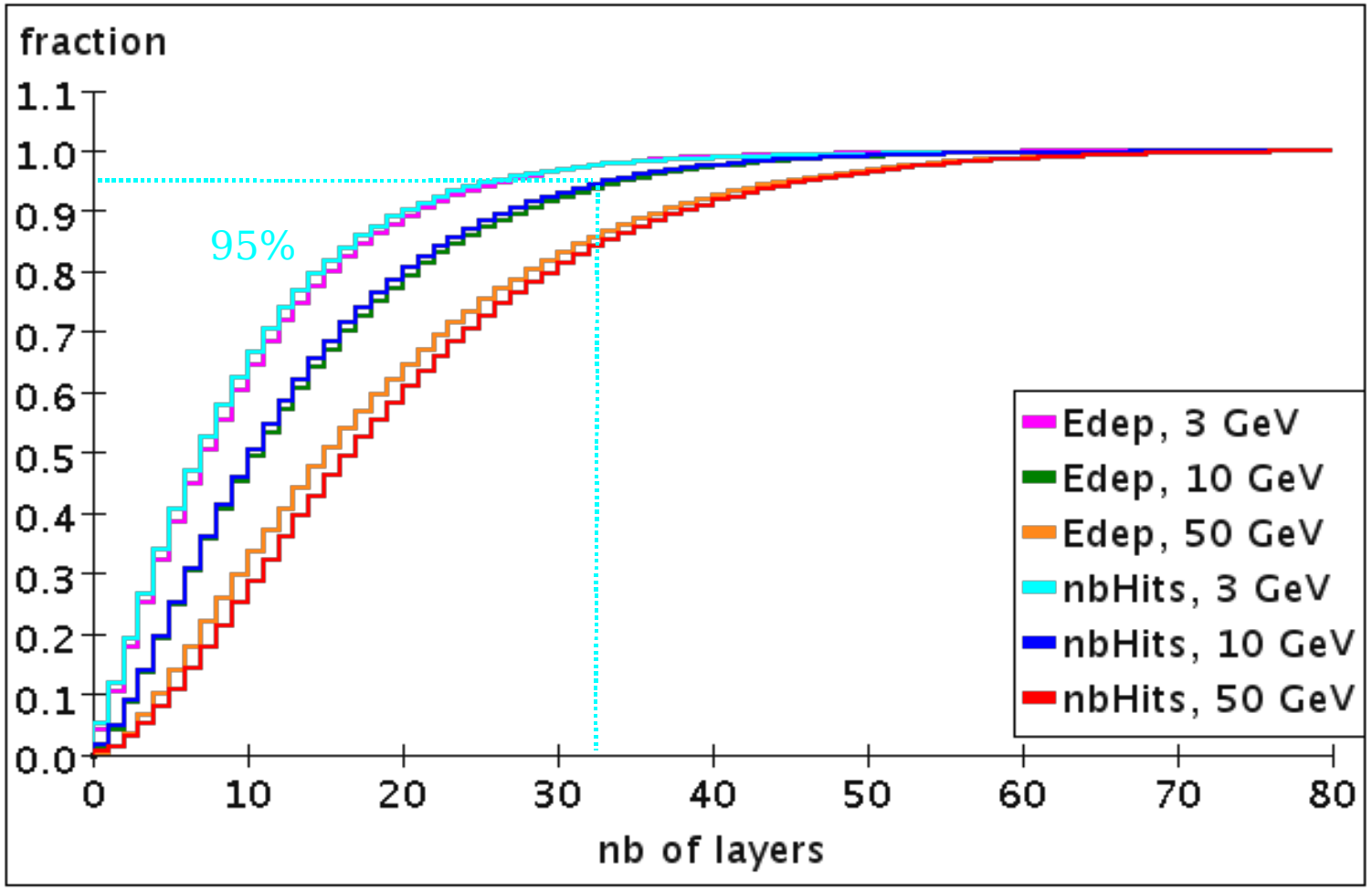
Longitudinal Size



12 mm tungsten + 5 mm Scint + 2.5 G10

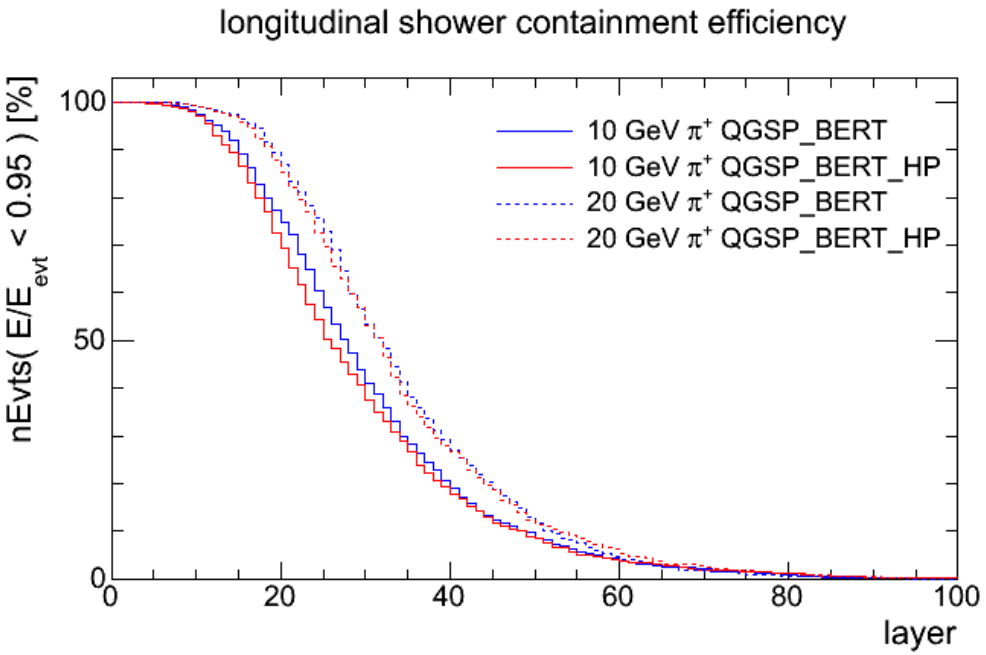
Longitudinal Size

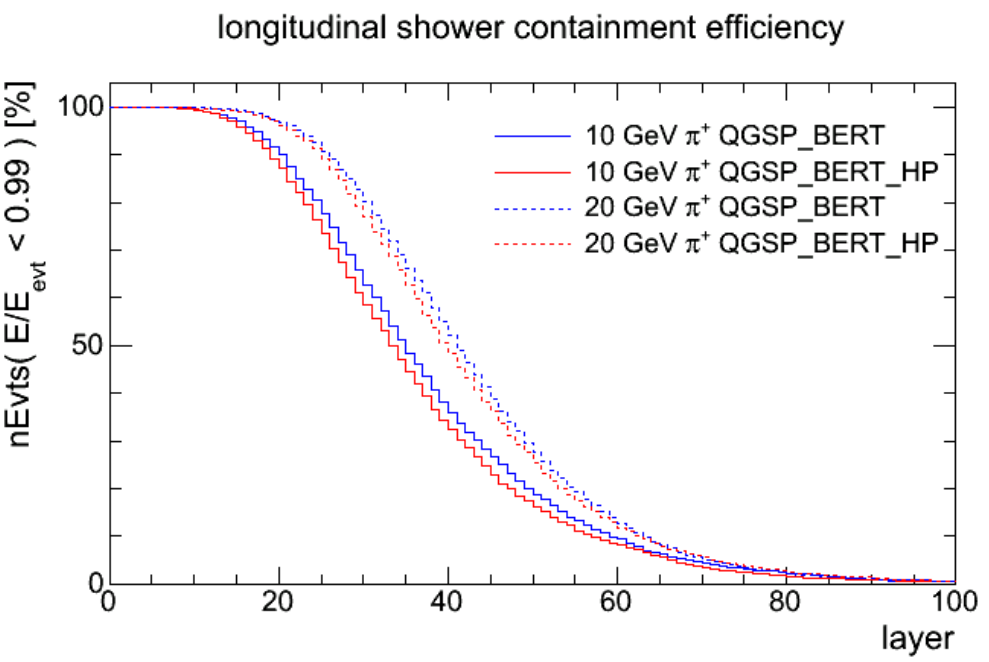


~11 mm tungsten + Micromegas

Jan Blaha

Longitudinal Containment Efficiency





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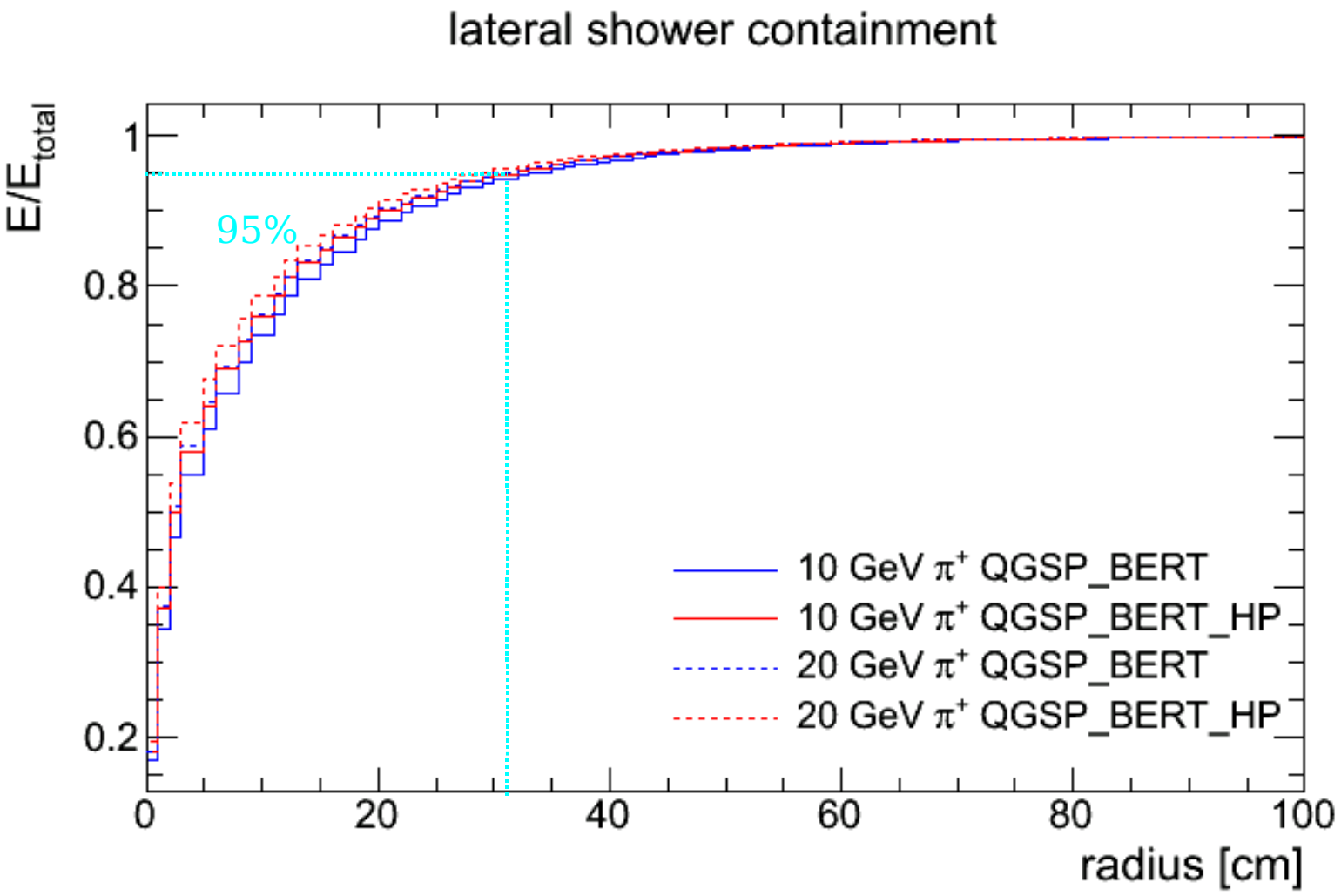

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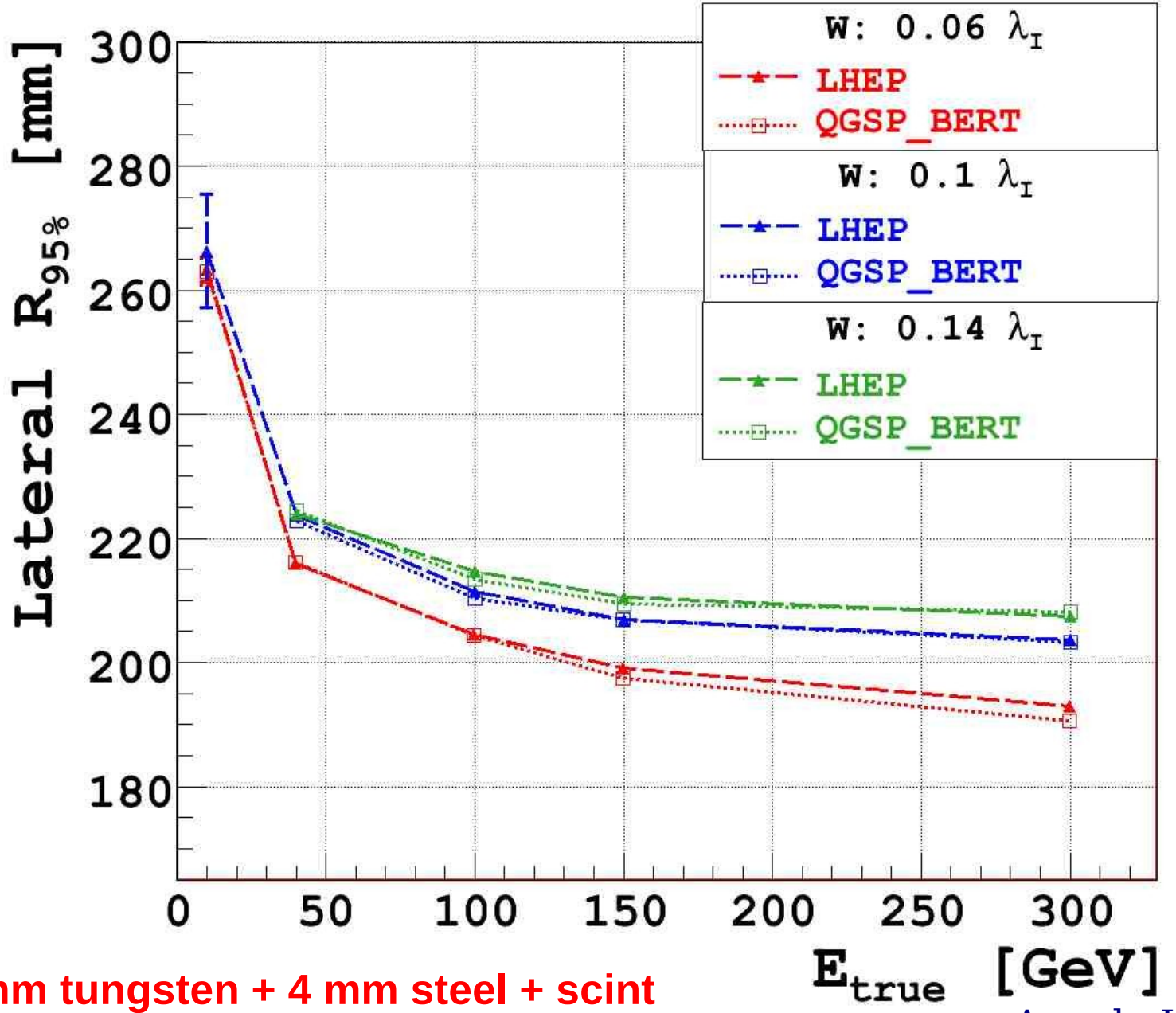
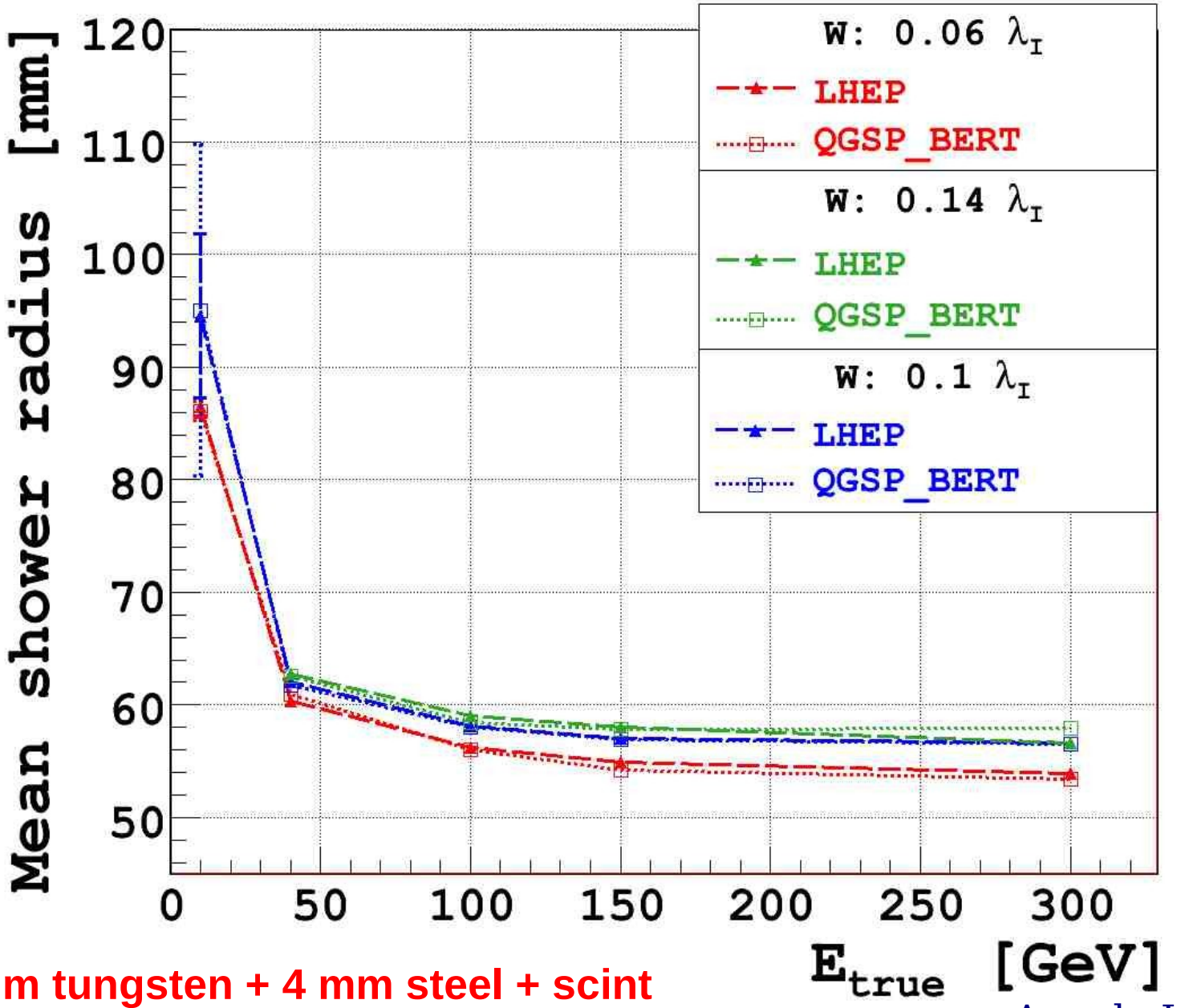


10 mm tungsten + 4 mm steel + scint

Angela Lucaci-Timoce

Lateral Size



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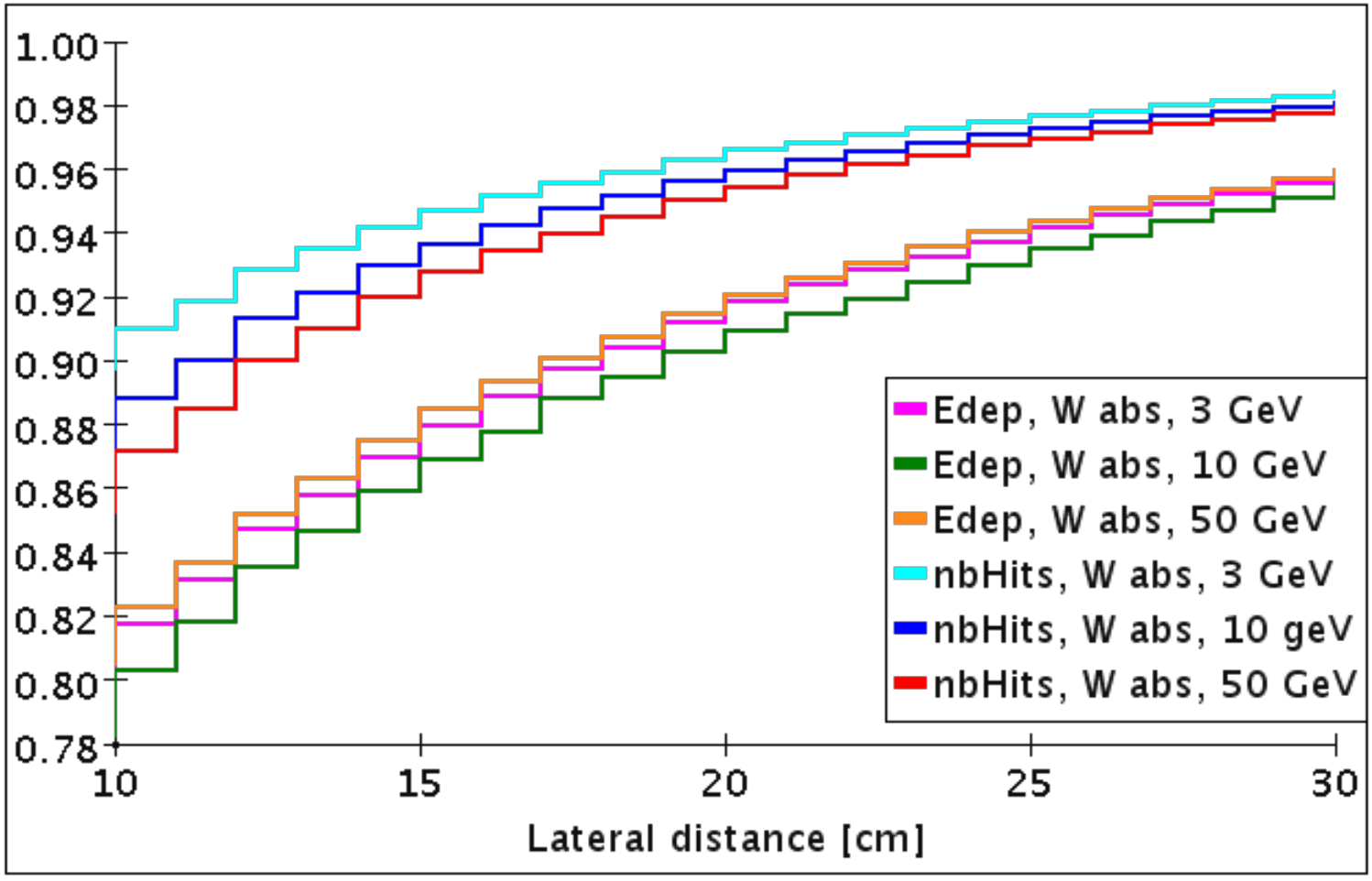

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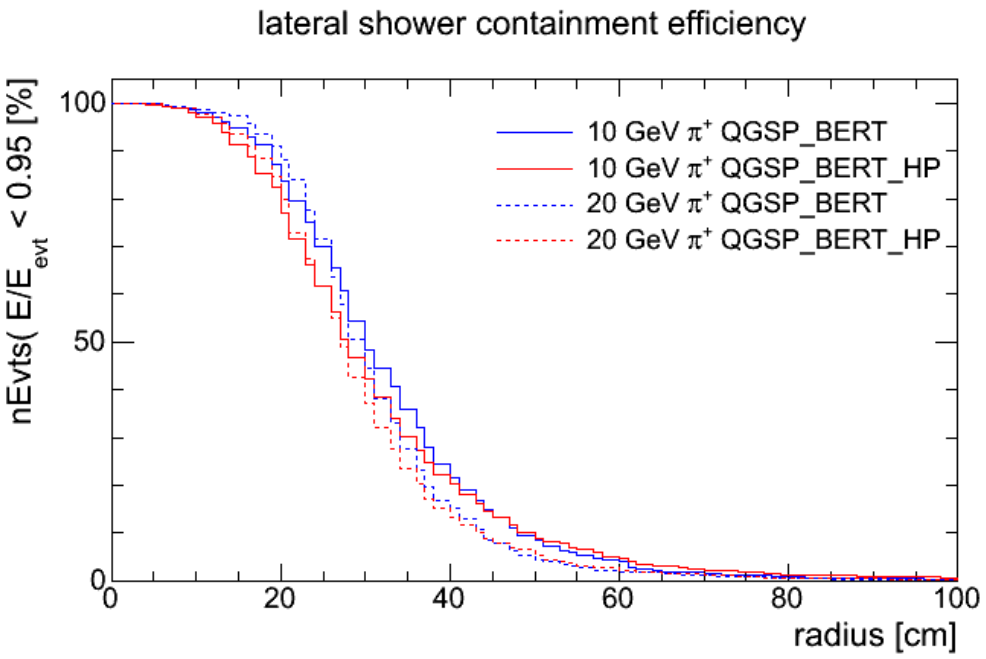

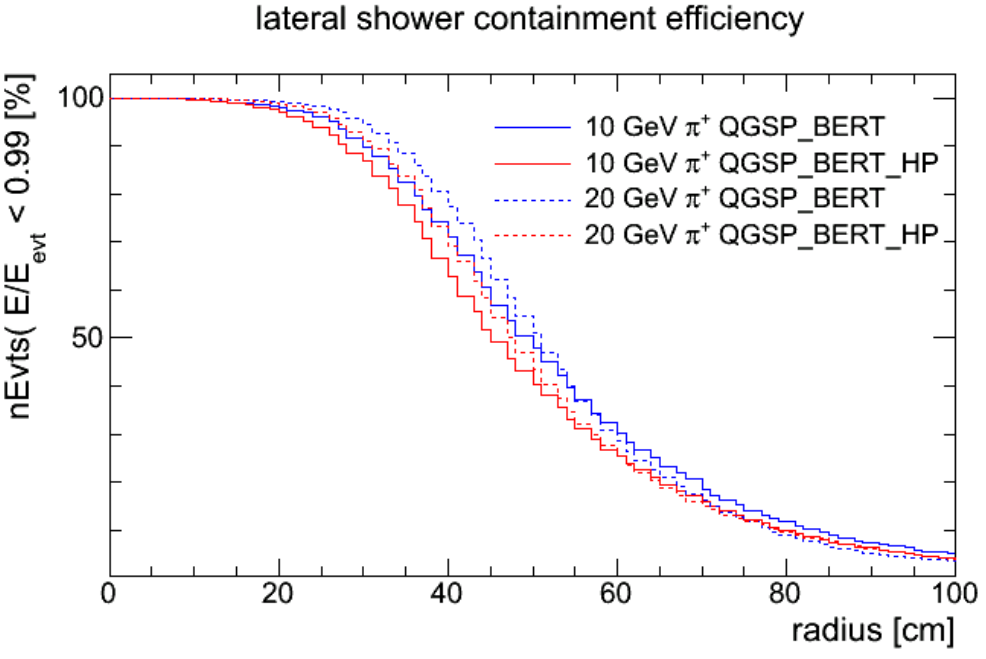

12 mm tungsten + 5 mm Scint + 2.5 G10

Open Questions

- Need some common definitions
  - Shower length & radius – energy weighted or containment
  - How much energy is fully contained
  - What plate thickness for the prototype
  - Active modules
- Need a measure for shower structure (secondary clusters, etc.)
  - Which events do we lose by lateral & longitudinal cuts?
- Define geometry of the tungsten prototype