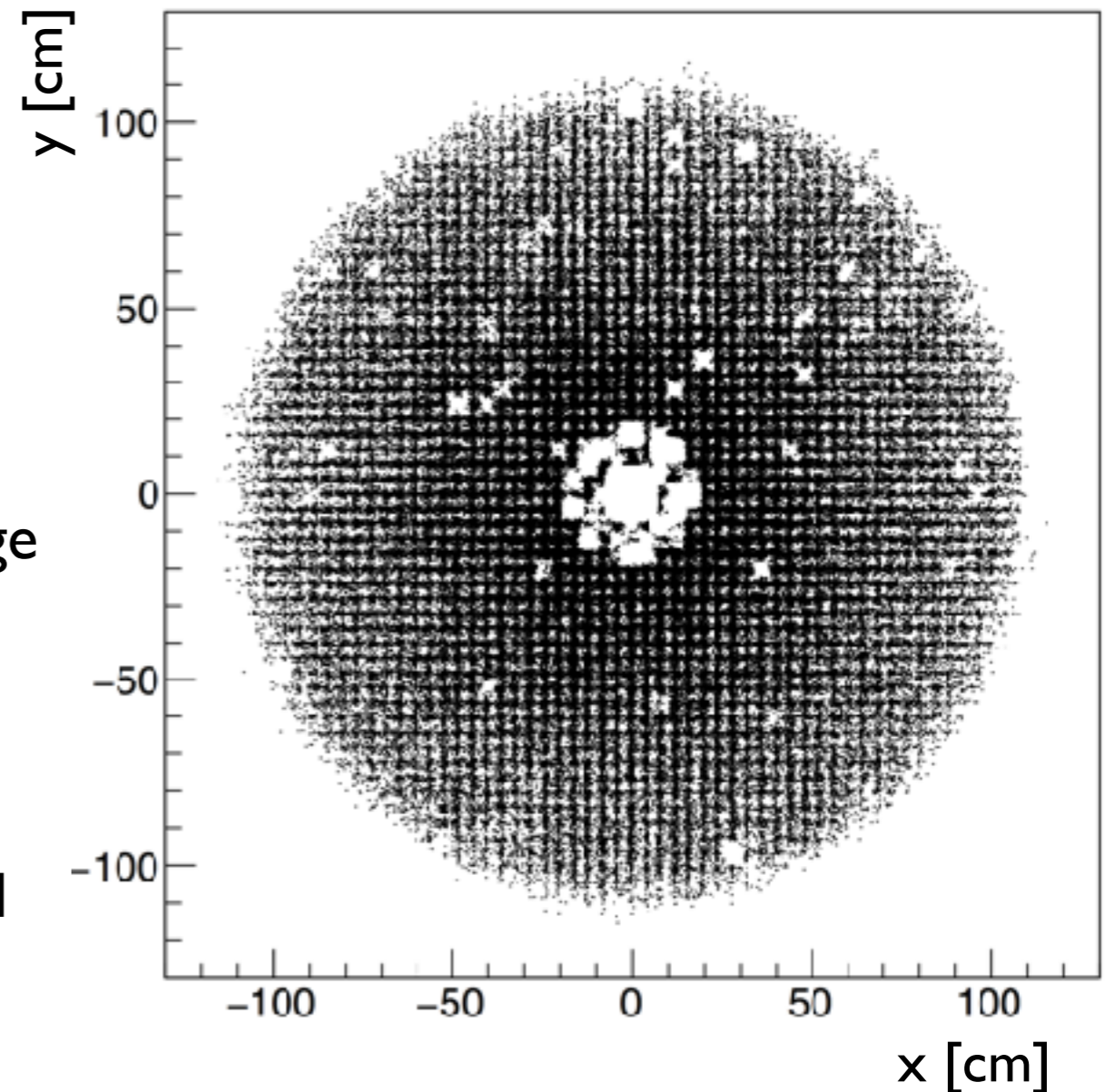


FCAL Efficiency

- Effects that exist in the MC:
 - block level threshold and effective variation of the threshold due to gain differences
- Effects that do not currently exist in MC:
 - dead blocks due to HV problems: plan to use LED data to determine an average channel efficiency in 50-run blocks
 - hopefully complete in the next few weeks (J. Foote)
- Shower-level efficiency needs to be verified using data/MC comparison (J. Zarling)



FCAL Energy Resolution

- Effects in MC now:
 - ad-hoc smearing of energy to make resolution consistent with design resolution
 - this resolution is apparently too good — we have yet to demonstrate design resolution in regime where fractional energy resolution is dominated by floor term
- Effects to be added to MC:
 - additional material in front FCAL which may increase statistical fluctuations in energy deposition (coded by R. Jones needs to be pushed)
 - adjustment to smearing to make consistent with data using η events (M. Dalton)
- Simultaneously explore measurement of energy resolution in data — present method has systematic problems



Other Issues

- Light guide:
 - Data suggests that interactions in the light guide need to be considered to properly get energy and timing response, especially for MIPs
 - New geometry includes model of light guide and reports energy deposition — needs tuning
- Timing resolution:
 - needs implementation in MC
 - can be cleanly studied using exclusive omega events
 - plan to do data/MC comparison and implement additional time smearing

