Status of the strip *clustering* k. kotera, shinshu-u, 19th November 2009 Physics Software meeting of ILD Asia

Status of last time

Seed events: pythiaZPoleuds.stdhep

ScECAL	Mokka	2009-10-15	0	→MarlinReco	v01-06	×**			
					2009-10-15*	×***			
* There is no LCFI_MokkaBaseNets, then v01-06 was used									
instead of 2009-10-15 for LCFI_MokkaBaseNets.									
**	** A runtime error has occurred (no any progress with event)								
***	Frozen in "YCLUS JET FINDER WITH DURAM" at the first event.								

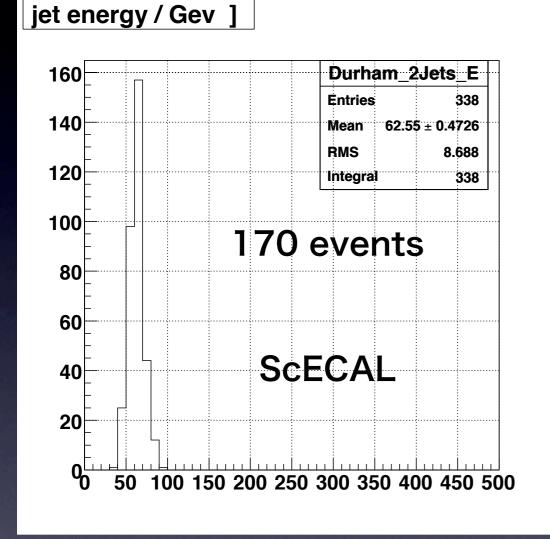
SiECAL	Mokka	v01-06	0	→MarlinReco	v01-06	0
		2009-10-15	0		2009-10-15*	×****

******* Frozen at event # 90.

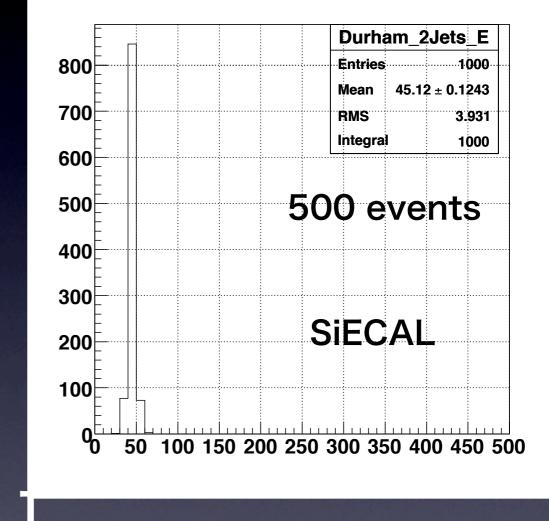
Status

- Mokka-Marlin-PFA for $\sqrt{s} = 91$ GeV uds Jet
 - with SiECAL \rightarrow OK (changed seed events file)
 - with ScECAL → Marlin is trapped in a loop at # 174 events
- However, I compare Jet energy resolutions between ScECAL and SiECAL

$\sqrt{s=91}$ GeV uds



jet energy / Gev]

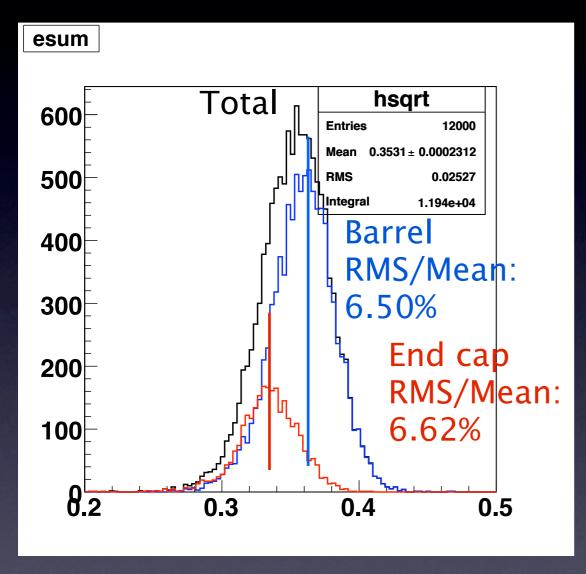


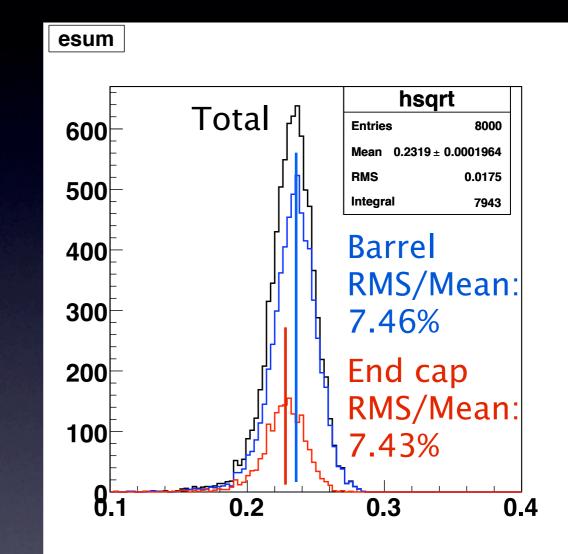
Without any tune for WcECAL,

mean of energy for ScECAL is larger with factor 1.4 than for SiECAL. Large RMS for ScECAL is caused by difference of energy response between the barrel and the end-caps. These are consistent with

.4 :

10 GeV photons





ScEcal

SiEcal

ratio of mean of energy, ScECAL:SiEcAL=1.5:1

Plan

- Fix the problem with MarlinReco for ScECAL (at #174 event of uds91_00.stdhep).
- 2. tuning calorimeter responses using single particles.
- 3. merging tiles to make strip ScWECAL,
- 4. developing the strip clustering algorithm,
- 5. comparing the performance between tile ScWECAL and strip ScWECAL,
- 6. comparing the performance between SiECAL and ScWECAL.