## **Updates from the Standalone sFCAL simulation**

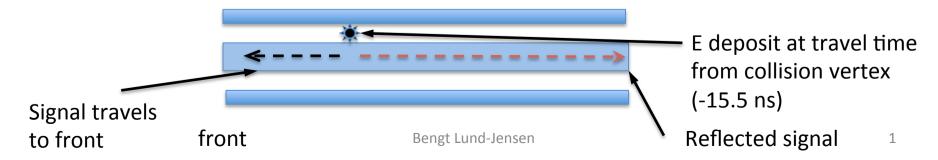
- Pulse shape from energy deposition
- Electron φ-position resolution

## Pulse shape (for 100 GeV e<sup>-</sup>)

Select cell with highest energy deposit.

## For each Geant4 hit

- Calculate the time for the signal to travel to the front face using the time of the energy deposit and the time to reach the front face based on the travel time for the signal along the rod of the gap (4.1 ns/m).
- Step (in units of 10 ps) degrading the signal by the gap drift time (assume 23 ns)
- Add signal to histogram at each step
- Reflect signal at back end and let it travel to front in a similar manner



## Hit time 450 400 350 300 250 HitTime 200 Entries 1.422061e+10 27.69 Mean 150 RMŞ 12.38 100 50 15

So far: Actual pulse shape before applying shaper function.

Next step: Apply shaping