Updates

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Simplified TPC

- Inner wall + outer wall
- Thick tube full of Gas
- Adding numbers of thin layer into the volume

```
<material name="TDR_gas" state="gas">
  <MEE unit="eV" value="177.374841770826"/>
  <D unit="g/cm3" value="0.001731"/>
  <fraction n="0.95667" ref="Ar"/>
  <fraction n="0.00519198196" ref="H"/>
  <fraction n="0.02165502376" ref="C"/>
  <fraction n="0.01648299428" ref="O"/>
</material>

<material name="TPC_endplate_mix" state="solid">
  <MEE unit="eV" value="97.0754229107761"/>
  <D unit="g/cm3" value="0.5827515446"/>
  <fraction n="0.00953598760814401" ref="C"/>
  <fraction n="0.558898138898139" ref="N"/>
  <fraction n="0.226789772550668" ref="O"/>
  <fraction n="0.00949198949198949" ref="Ar"/>
  <fraction n="0.14" ref="Al"/>
  <fraction n="0.0096" ref="Cl"/>
  <fraction n="0.0433592706" ref="Si"/>
  <fraction n="0.00232484085105981" ref="H"/>
</material>
```
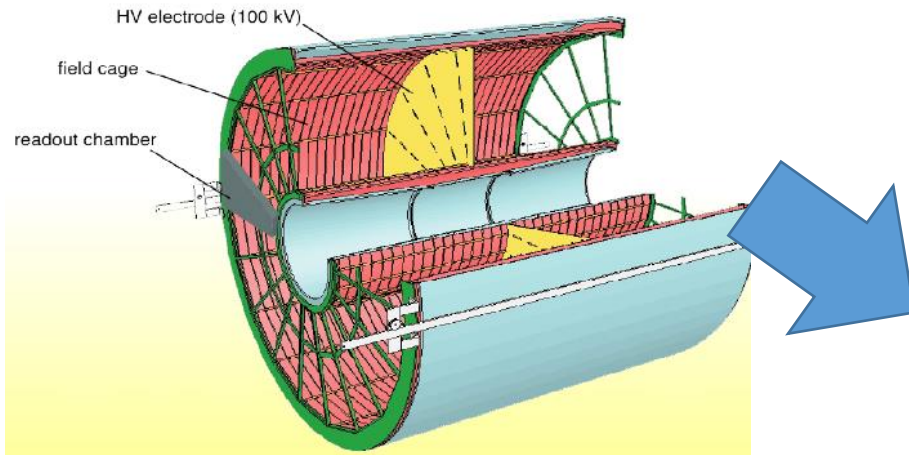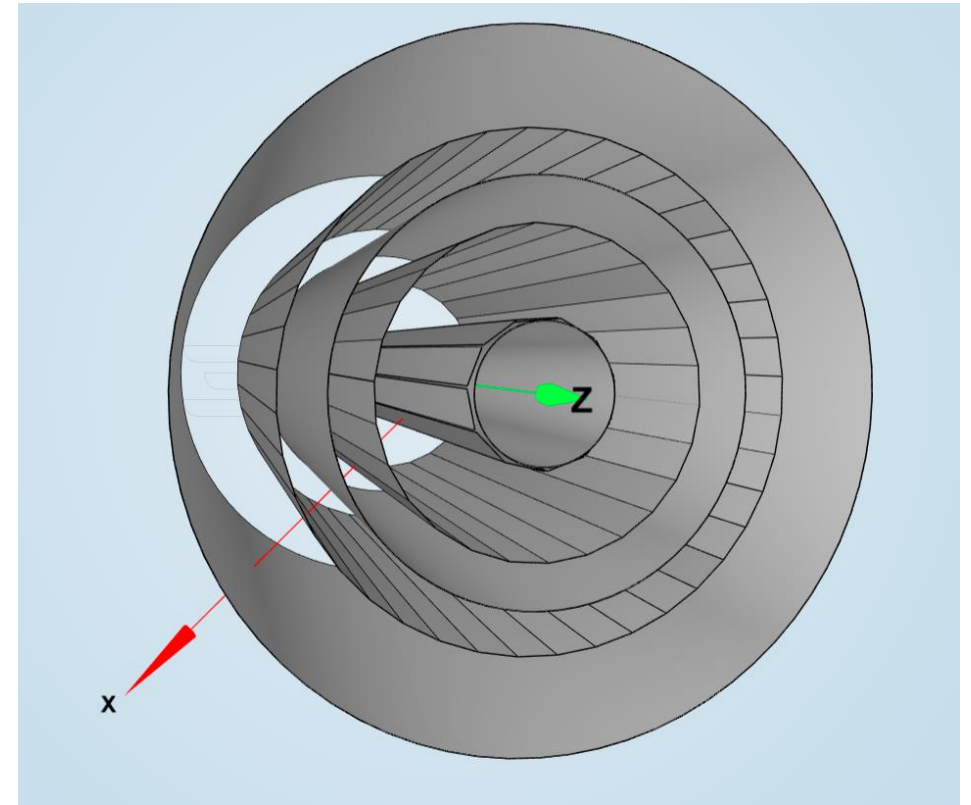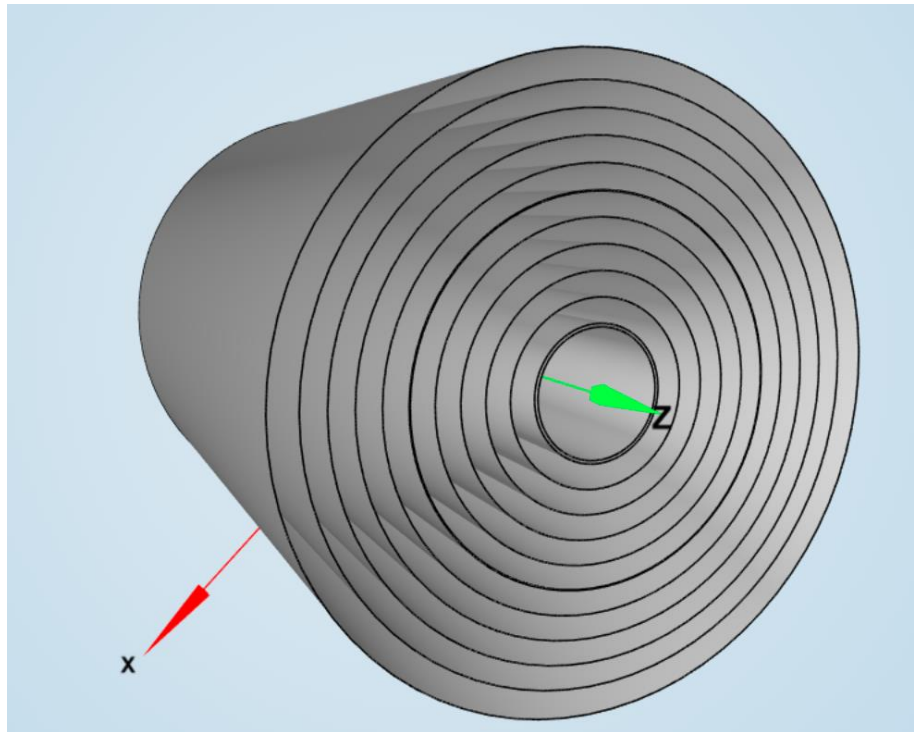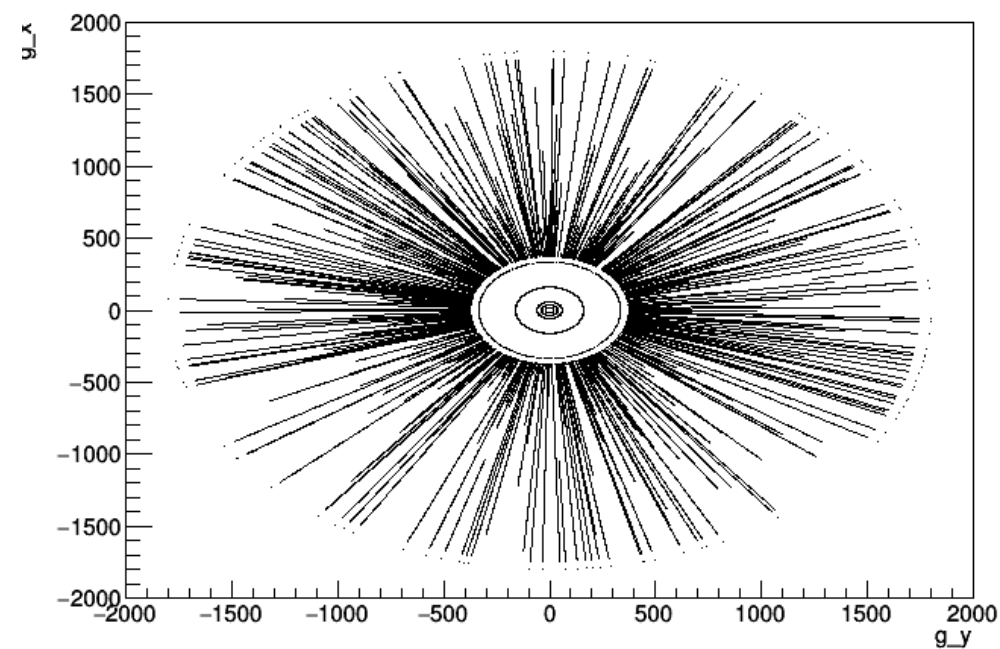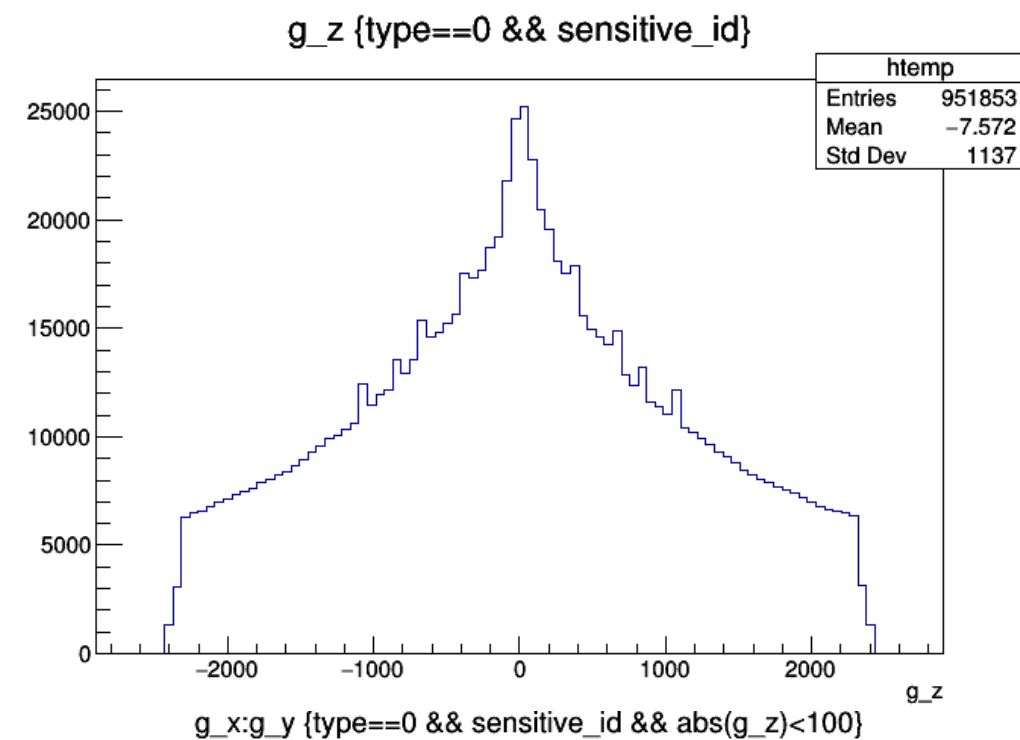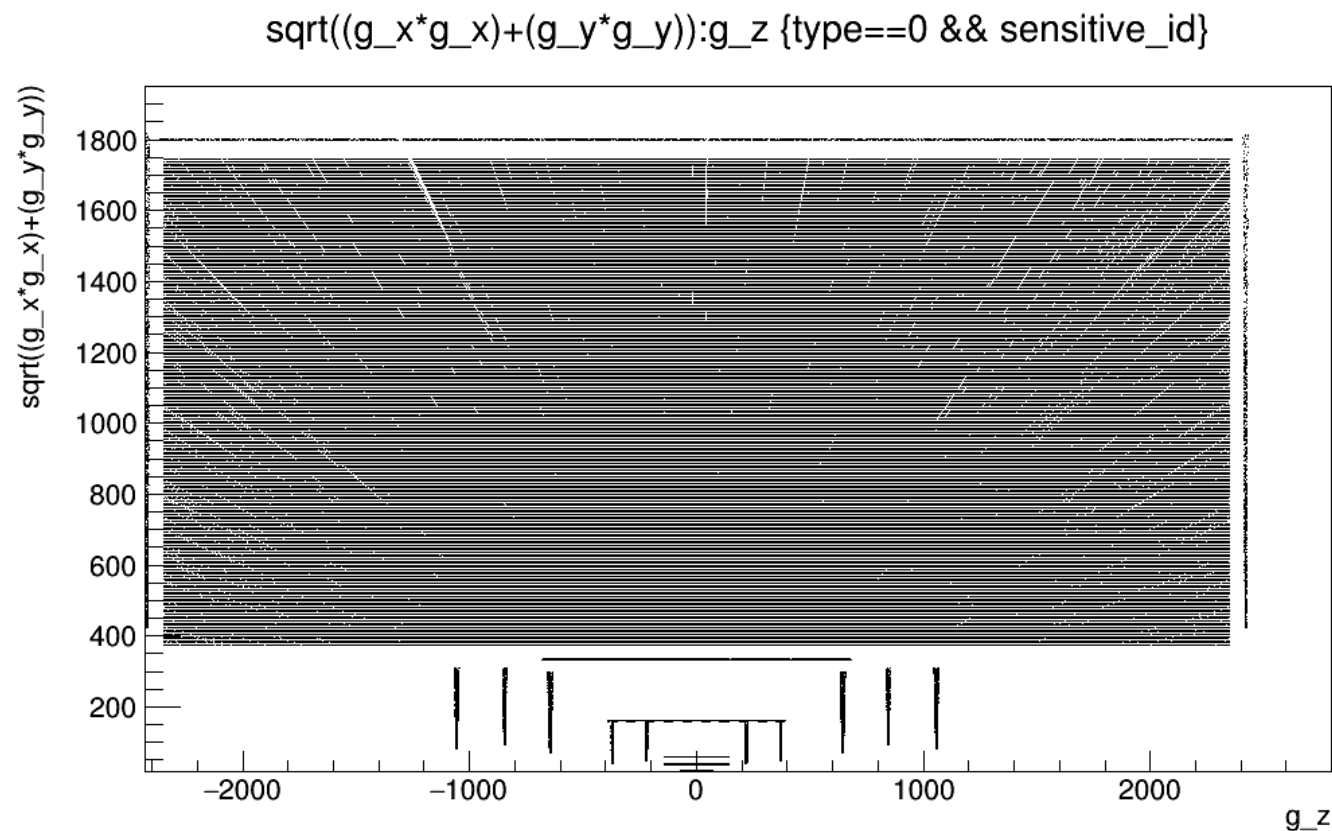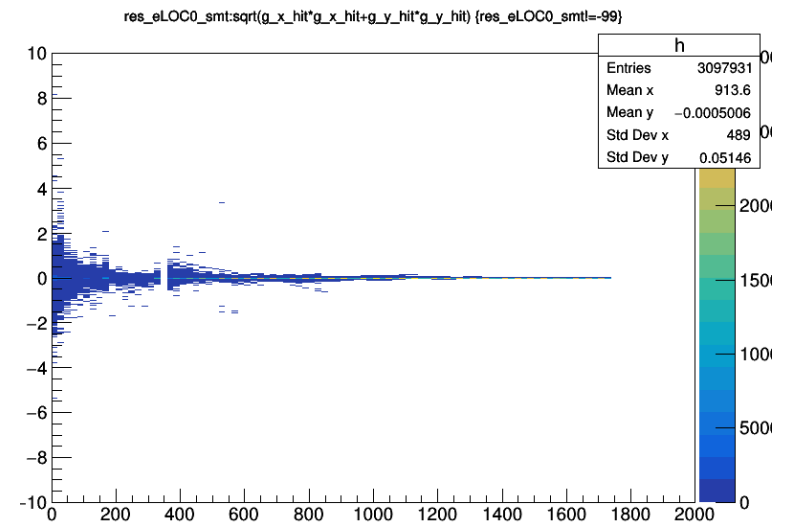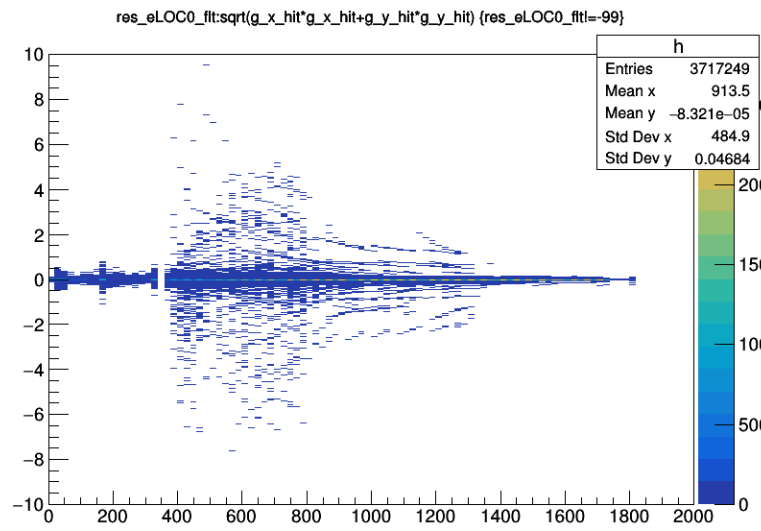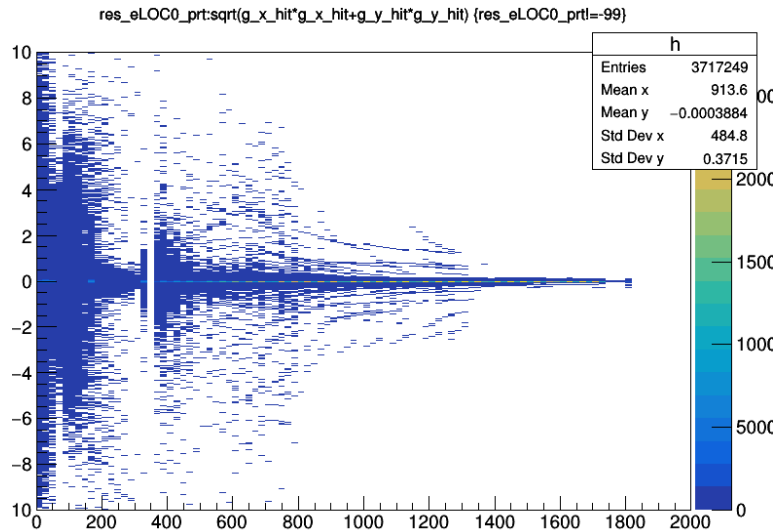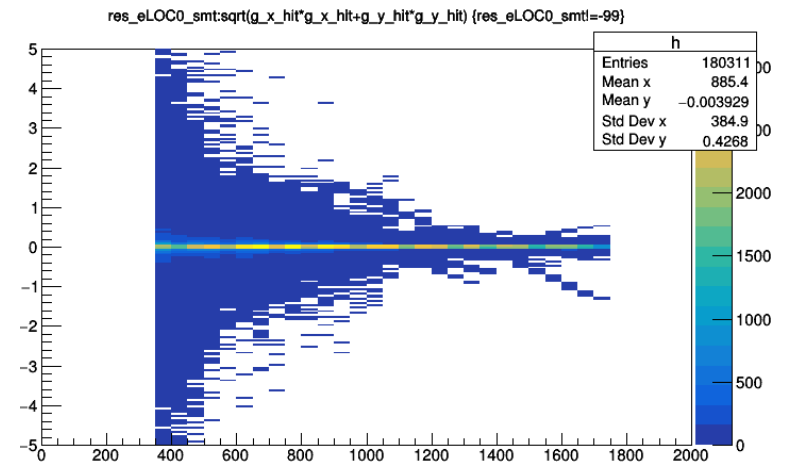
Simplified TPC implementation

- Silicon part + simplified TPC(thin tube/ with modules)
- .cpp + xml in TPC-kalman branch

Propagation

sqrt((g_x*g_x)+(g_y*g_y)):g_z {type==0 && sensitive_id}

g_z {type==0 && sensitive_id}

htemp	
Entries	951853
Mean	−7.572
Std Dev	1137

g_x:g_y {type==0 && sensitive_id && abs(g_z)<100}
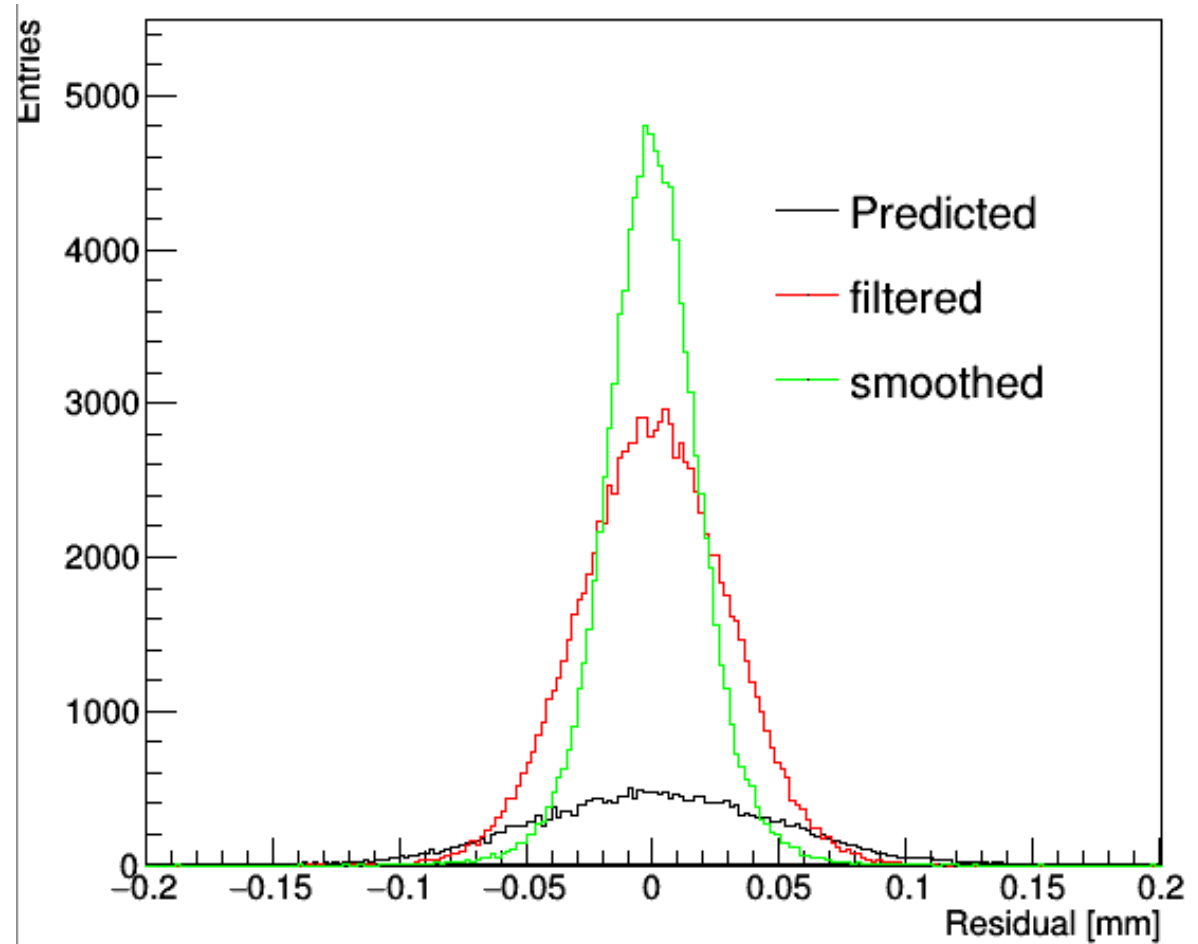
Kalman filter
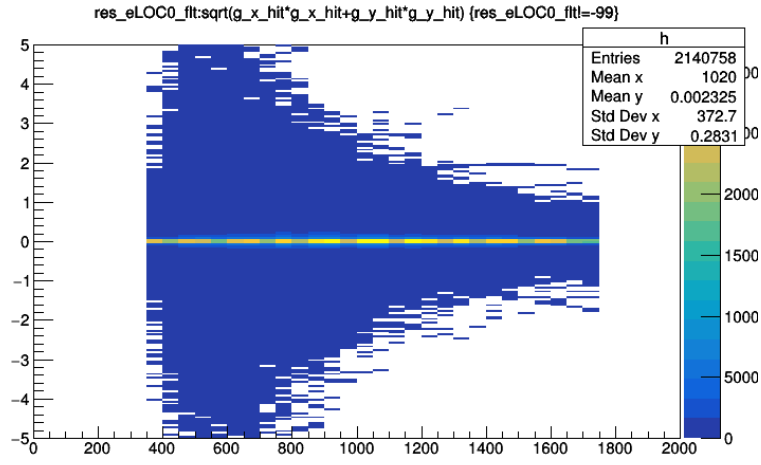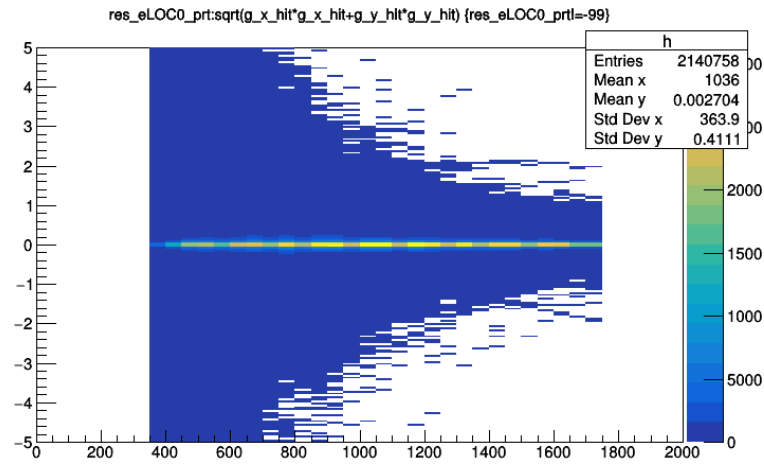
All geo

- Residual distribution
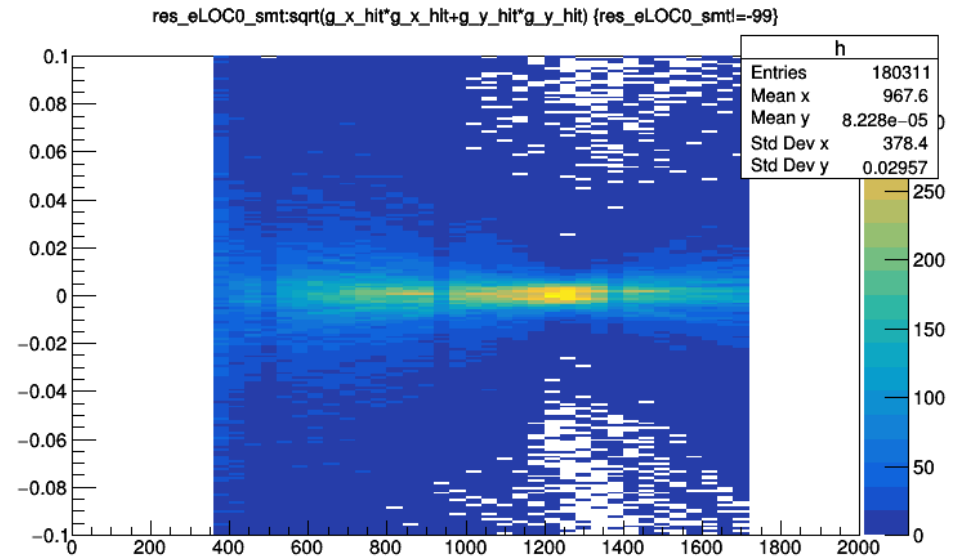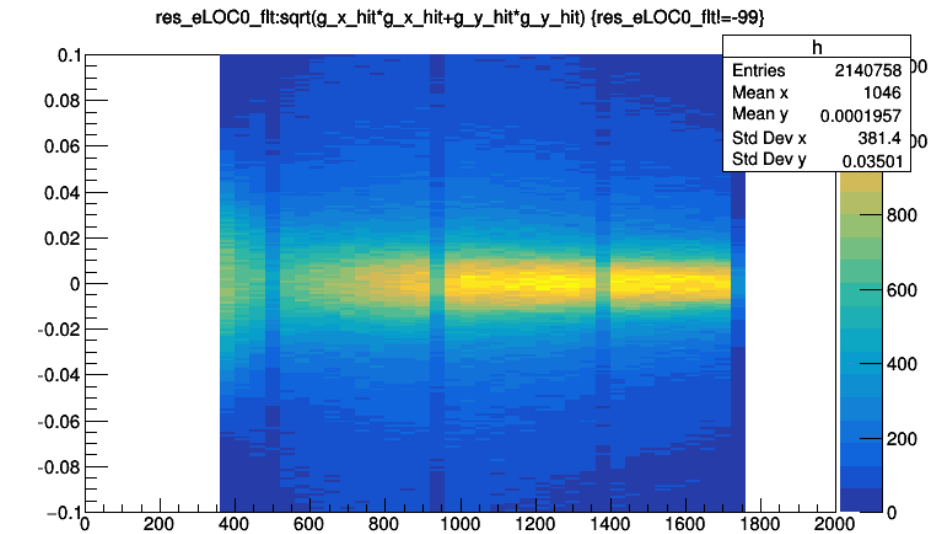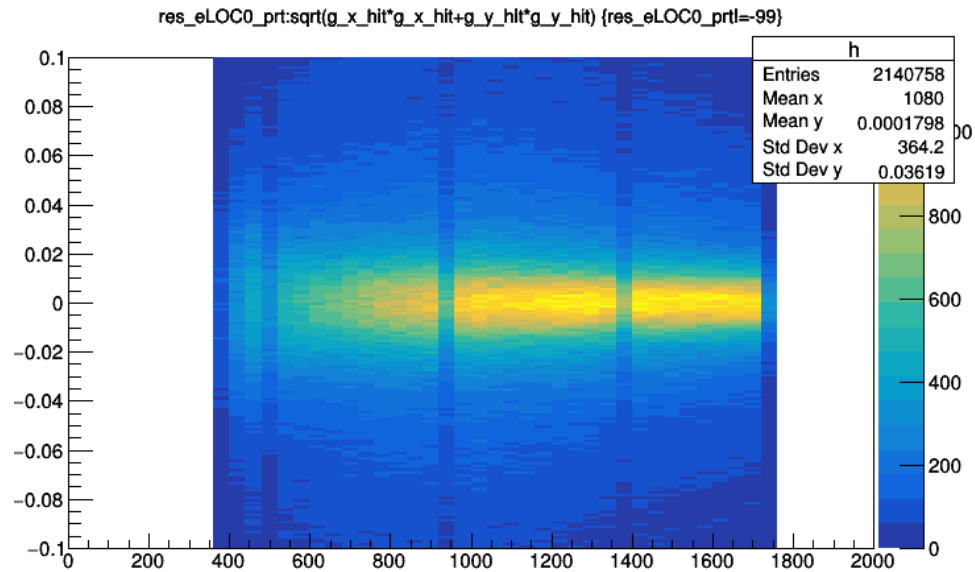- Smooth still have some problems to be fixed

Next:

- Debugging
- Take ODD as a reference and start adding more materials in our tracker

Backup

Only 100 TPC – modules

All geo + 100 Modules