

CEPC in ACTS

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Setup

- **Geometry: `cepc_v04_master.xml`**
- **JSON: `Detectors_DD4hepDetector_compact_CEPC_material-maps-cepc-all.json`**
- **branch: `fix-backward-filtering-trouble`**
- **Commit: `6bce111`**
- **Events: 10 k**

1. WITH MATERIALS

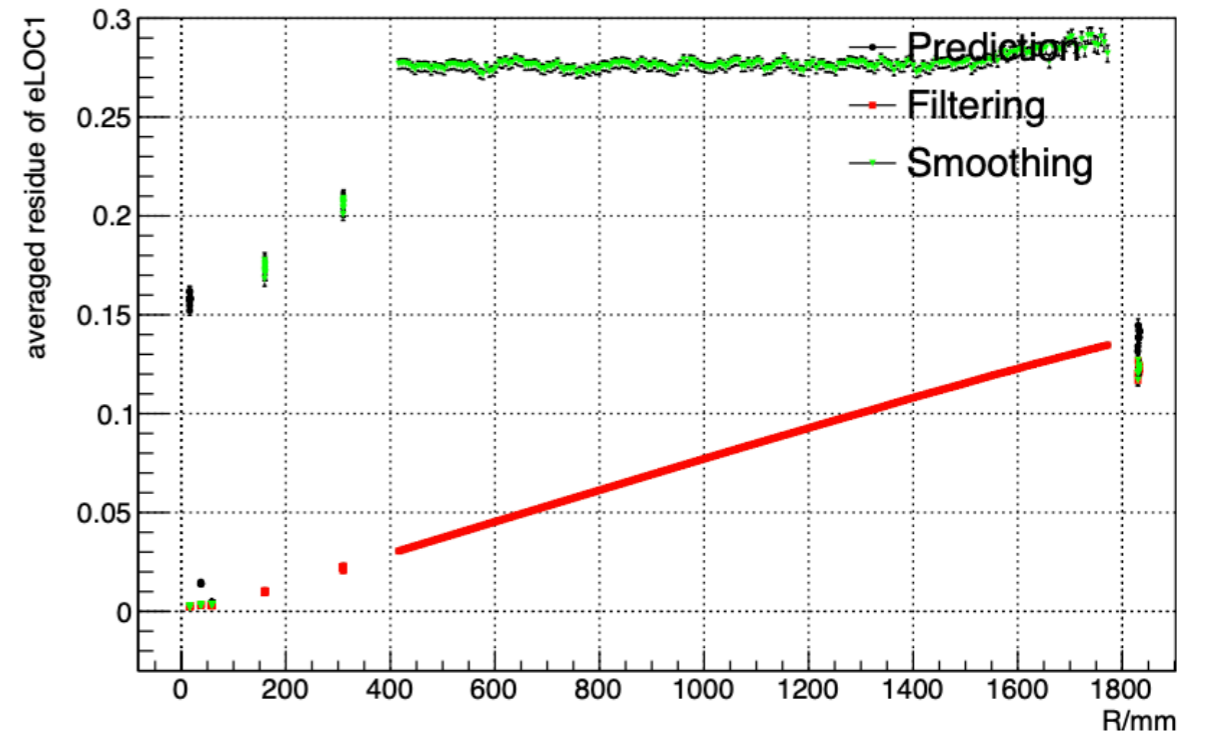
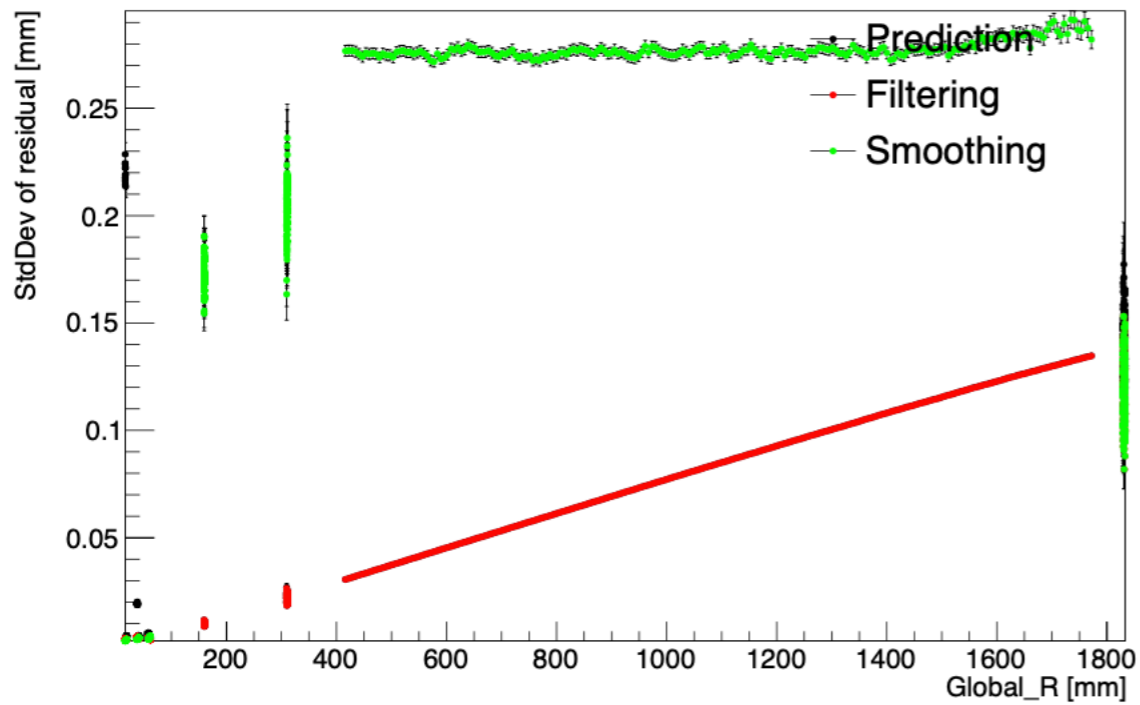
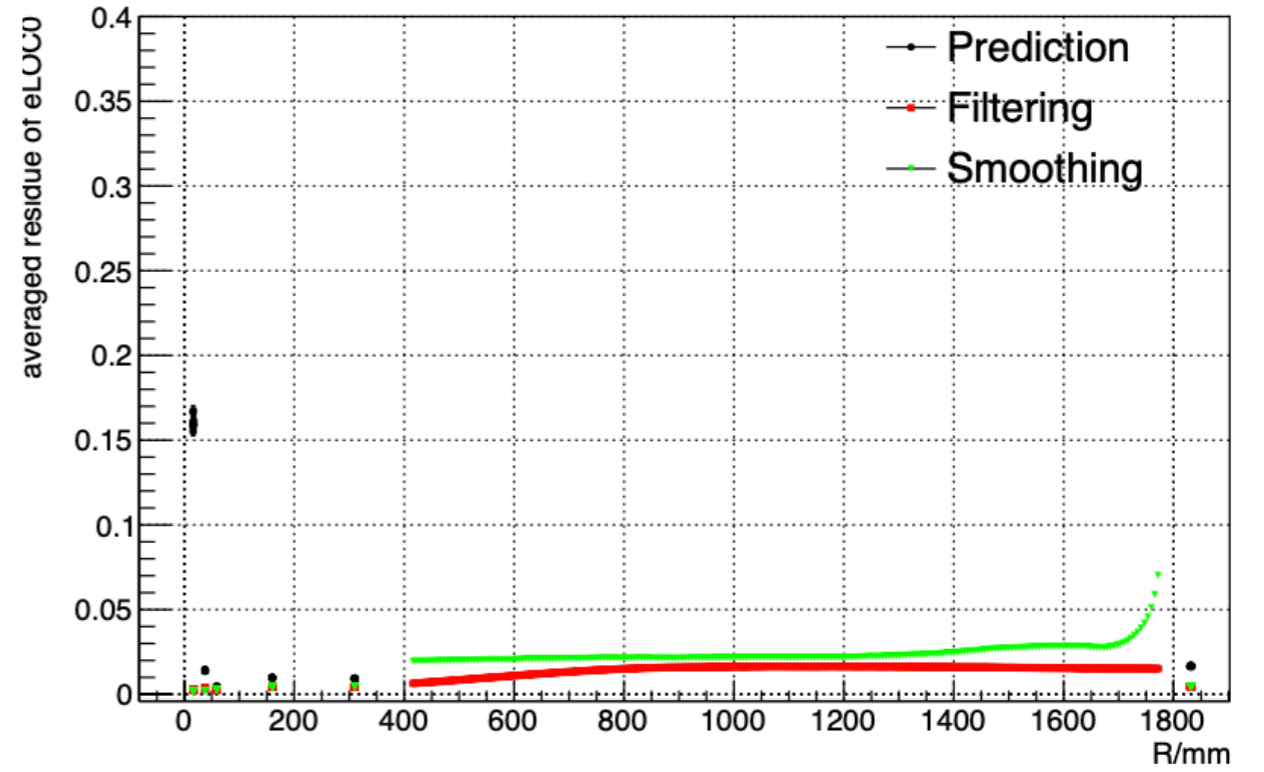
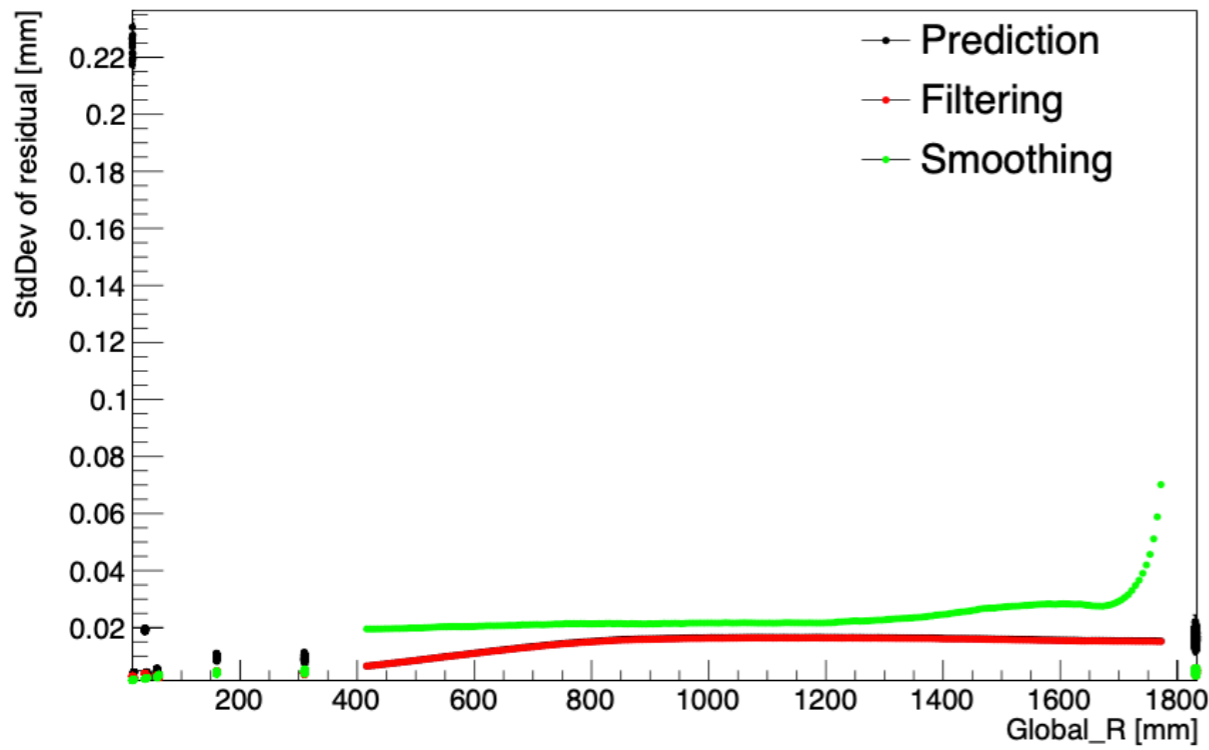
 $\times 10^3$

Item	LOC0	LOC1	PHI	THETA	Q/P
resid. at perigee	0.00 ± 1.66	-0.04 ± 2.98	-0.00 ± 0.02	-0.00 ± 0.08	-0.00 ± 0.03
pull in prt	-0.01 ± 1.00	0.01 ± 1.01	-0.01 ± 1.00	-0.01 ± 1.01	0.00 ± 1.00
pull in flt	-0.01 ± 1.00	0.01 ± 1.01	-0.01 ± 1.00	-0.01 ± 1.01	0.00 ± 1.00
pull in smt	-0.00 ± 0.94	0.01 ± 0.89	0.00 ± 0.81	-0.00 ± 0.66	-0.00 ± 0.69
pull at perigee	0.00 ± 1.00	-0.02 ± 1.00	-0.01 ± 0.99	-0.01 ± 1.01	-0.01 ± 1.00

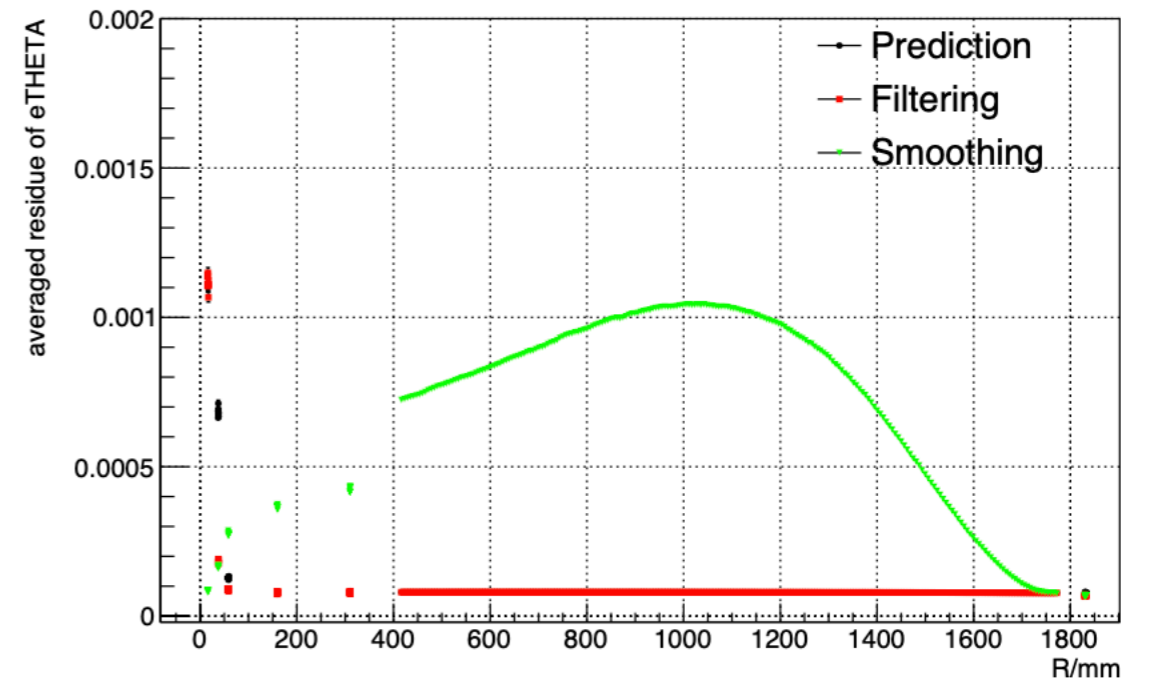
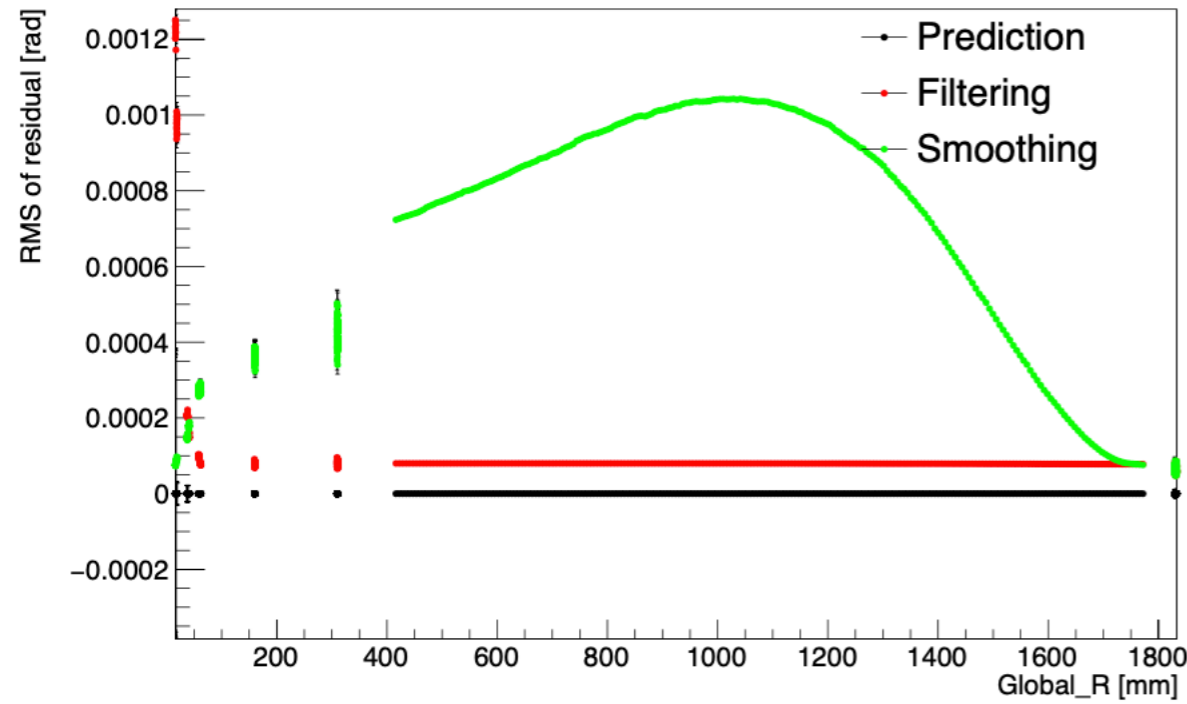
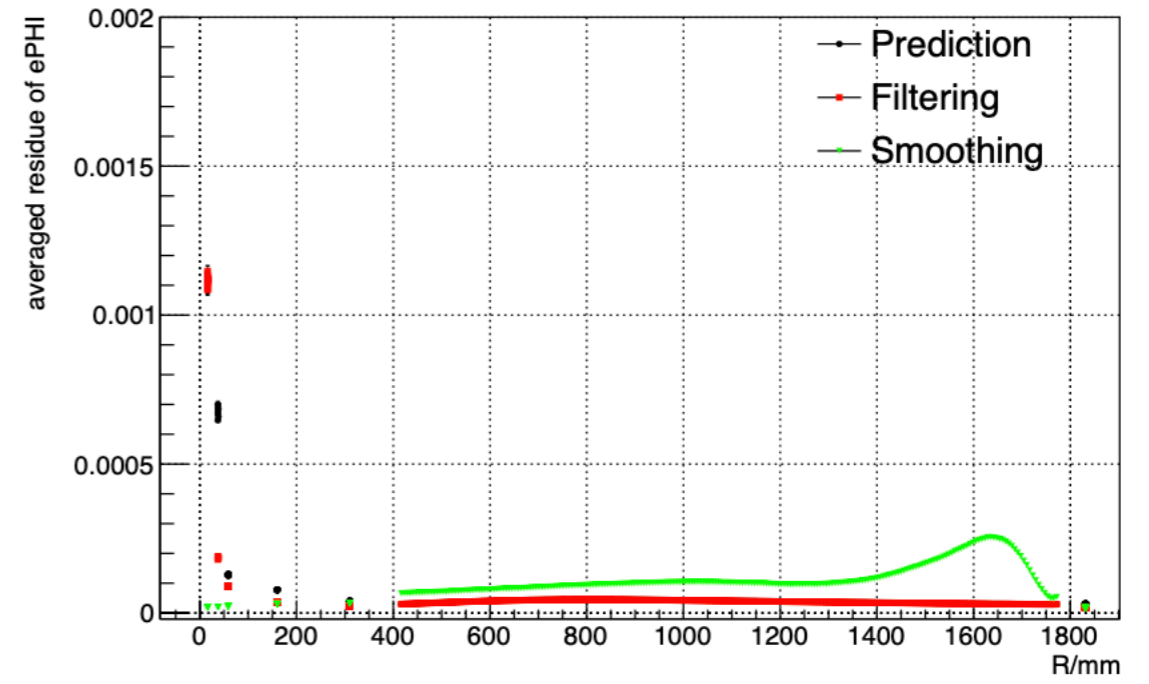
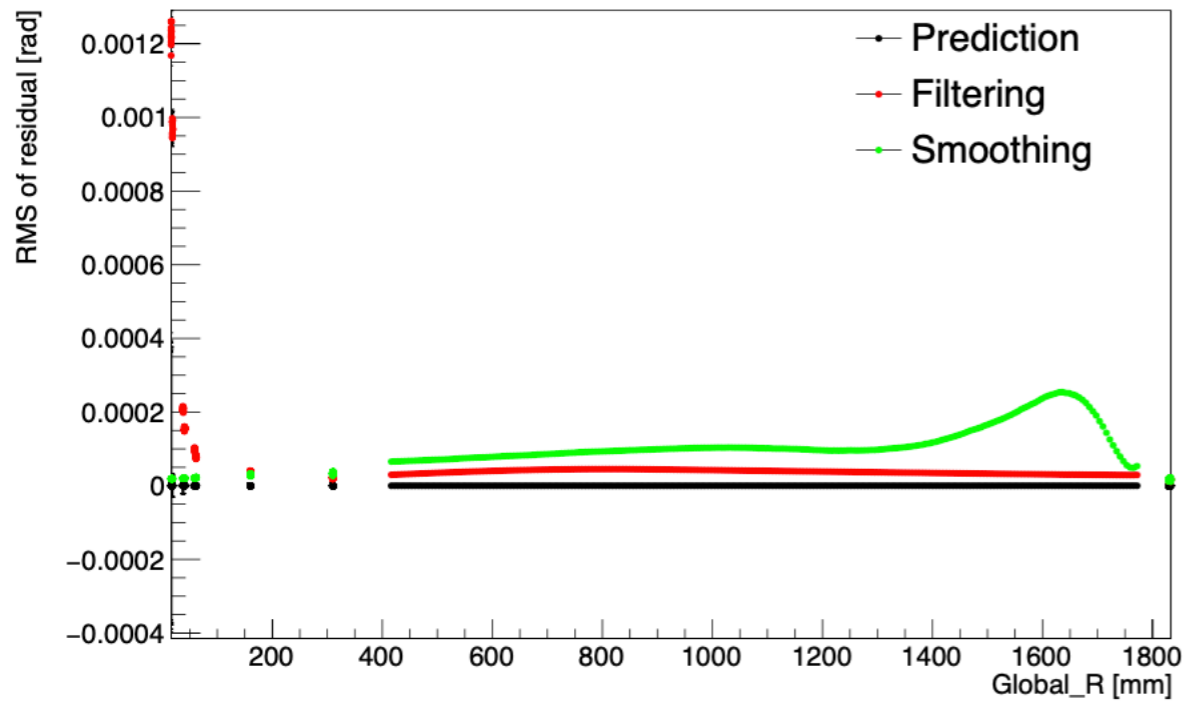
2. WITHOUT MATERIALS

 $\times 10^3$

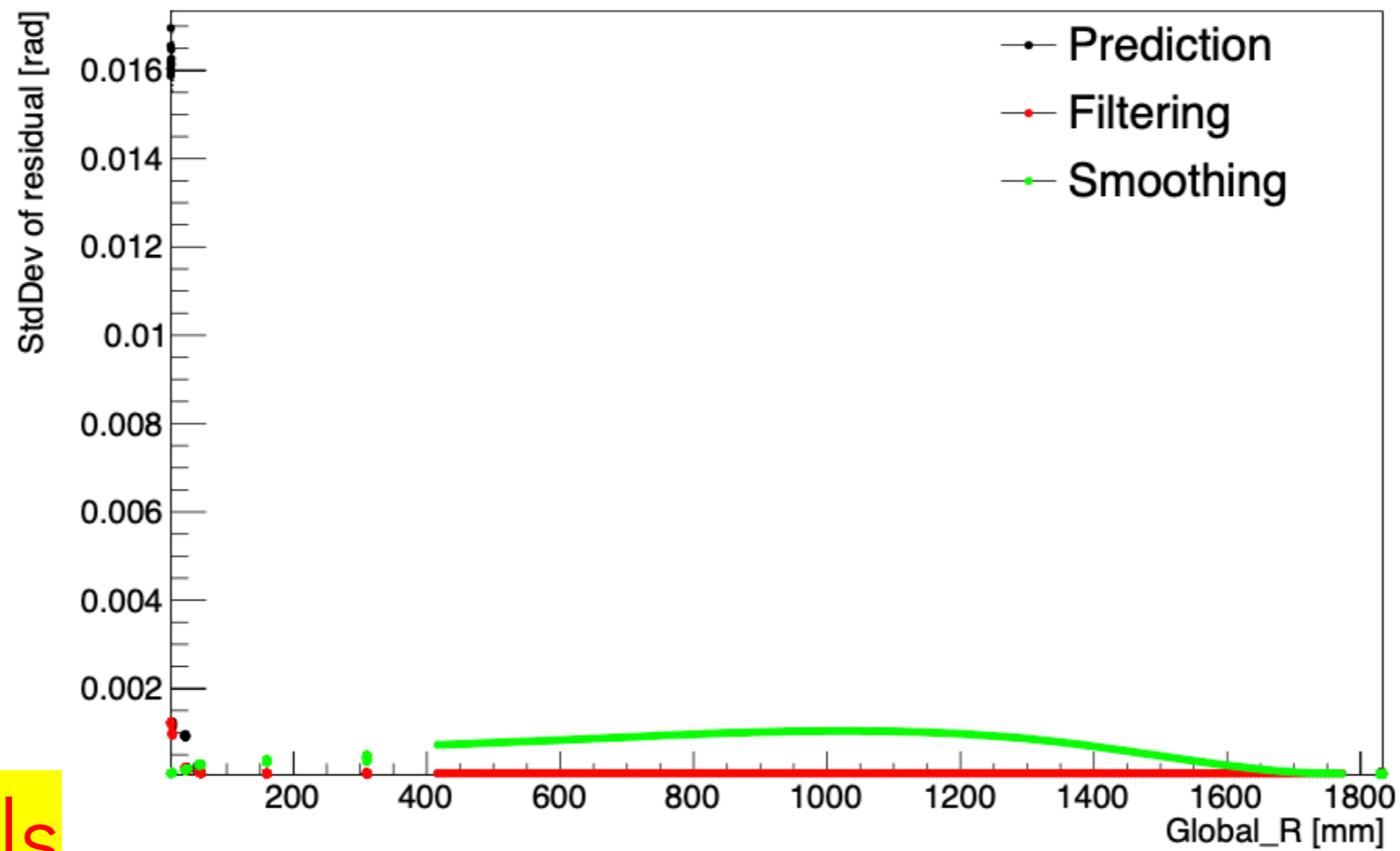
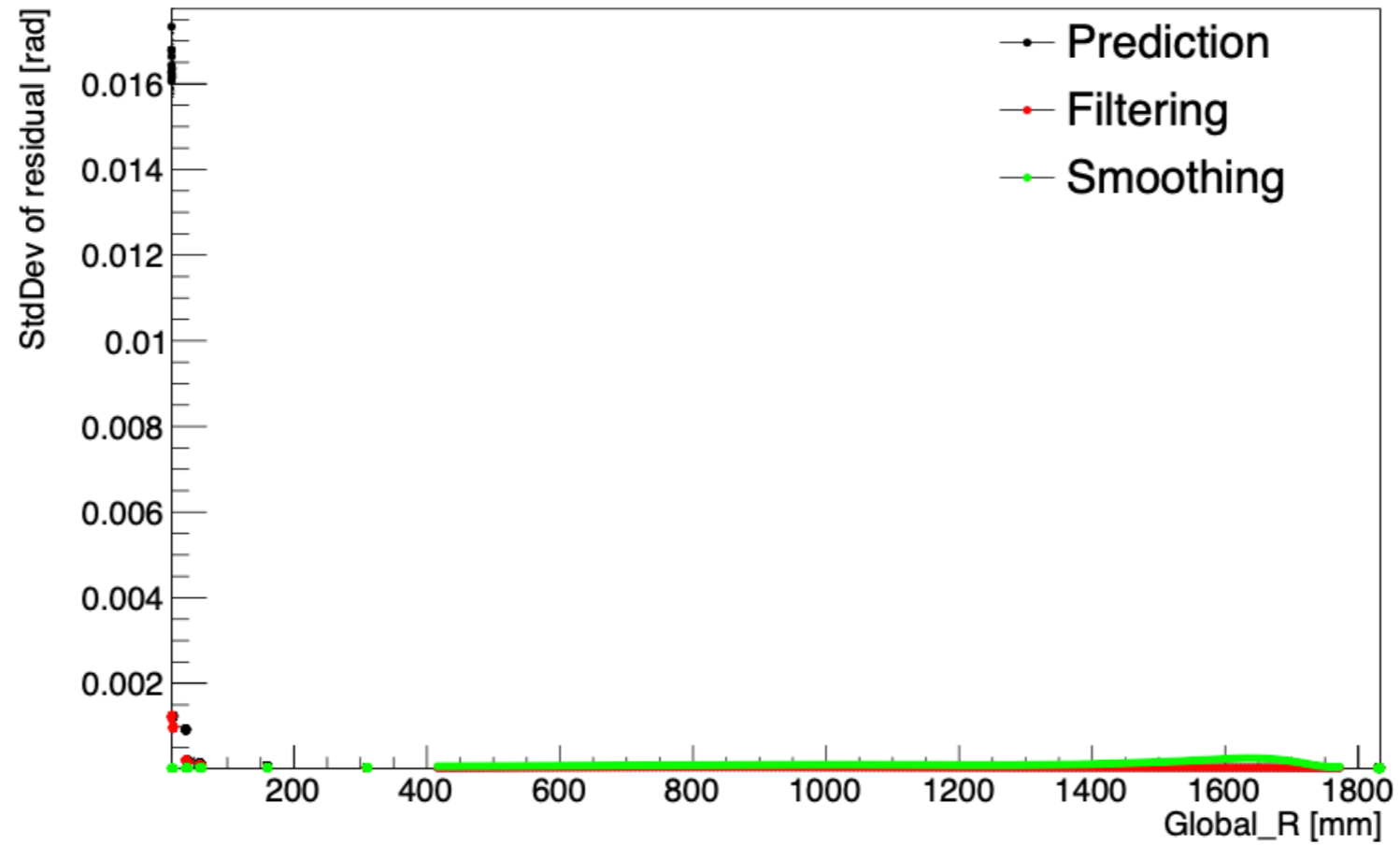
Item	LOC0	LOC1	PHI	THETA	Q/P
resid. at perigee	0.00 ± 1.63	-0.04 ± 2.98	-0.00 ± 0.02	-0.00 ± 0.08	-0.00 ± 0.03
pull in prediction	-0.01 ± 1.00	0.01 ± 1.01	-0.01 ± 1.00	-0.01 ± 1.01	0.01 ± 1.00
pull in filtering	-0.01 ± 1.00	0.01 ± 1.01	-0.01 ± 1.00	-0.01 ± 1.01	0.01 ± 1.00
pull in smoothing	-0.00 ± 0.93	0.01 ± 0.89	0.00 ± 0.80	-0.00 ± 0.66	-0.00 ± 0.67
pull at perigee	0.00 ± 0.99	-0.02 ± 1.00	-0.00 ± 1.00	-0.01 ± 1.01	-0.00 ± 1.00



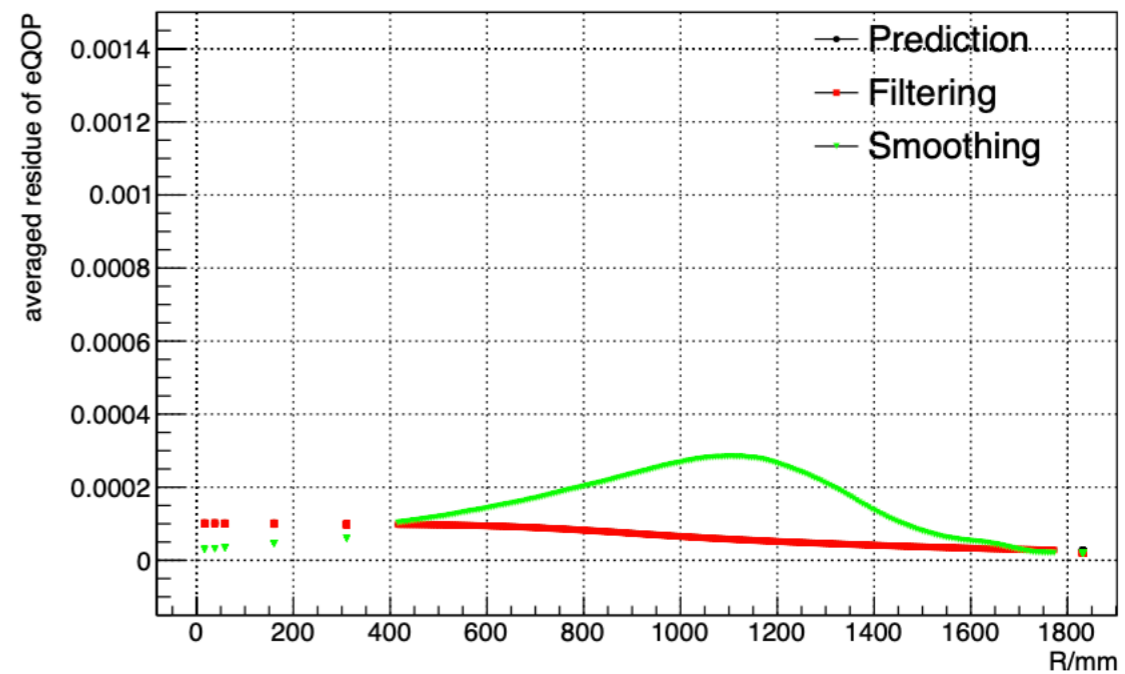
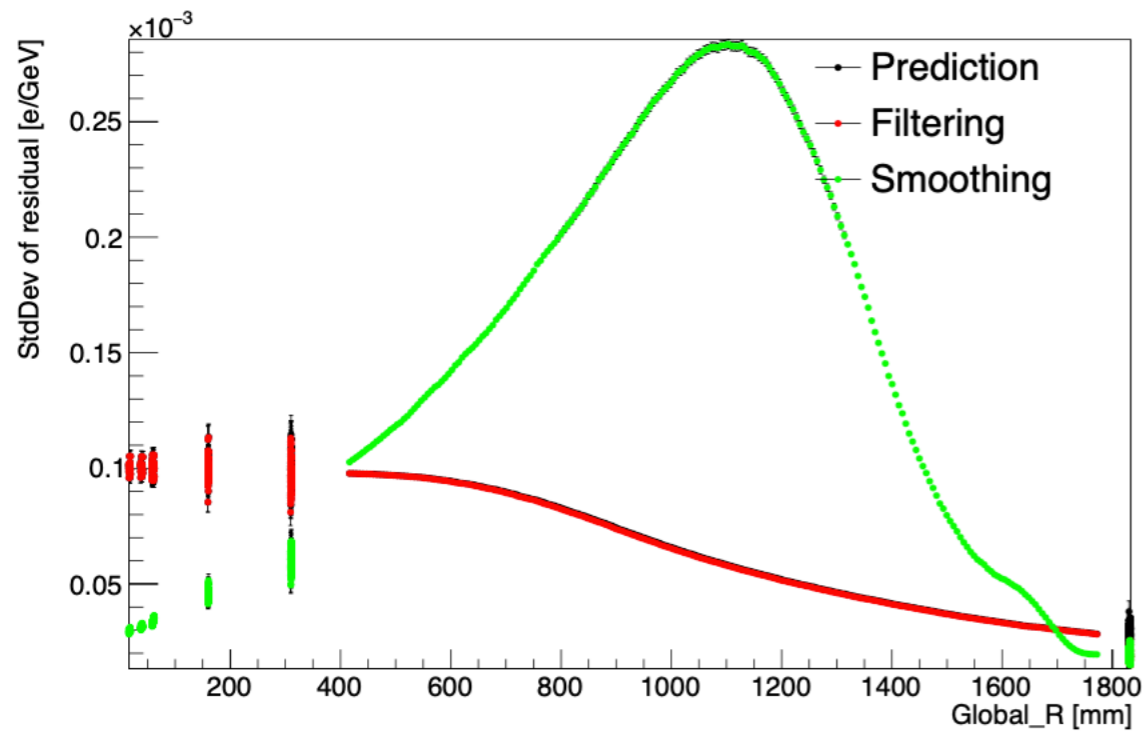
With materials



With materials

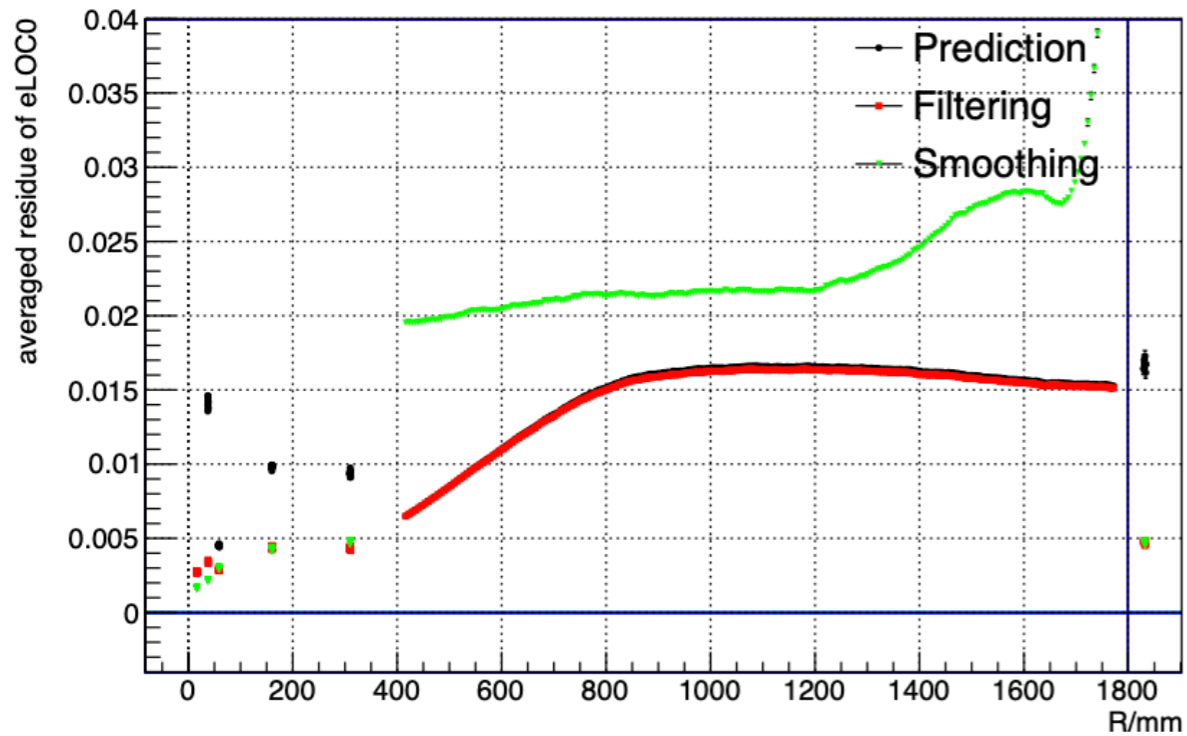


With materials

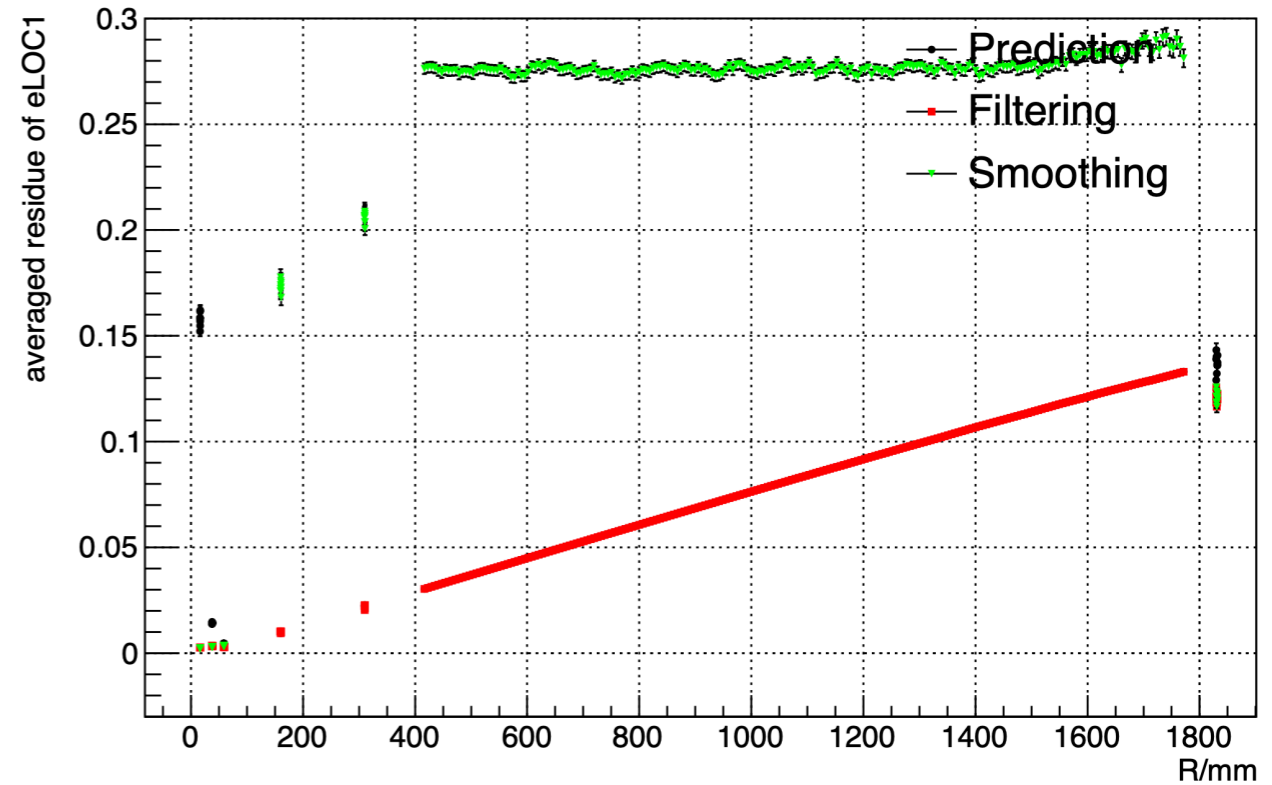
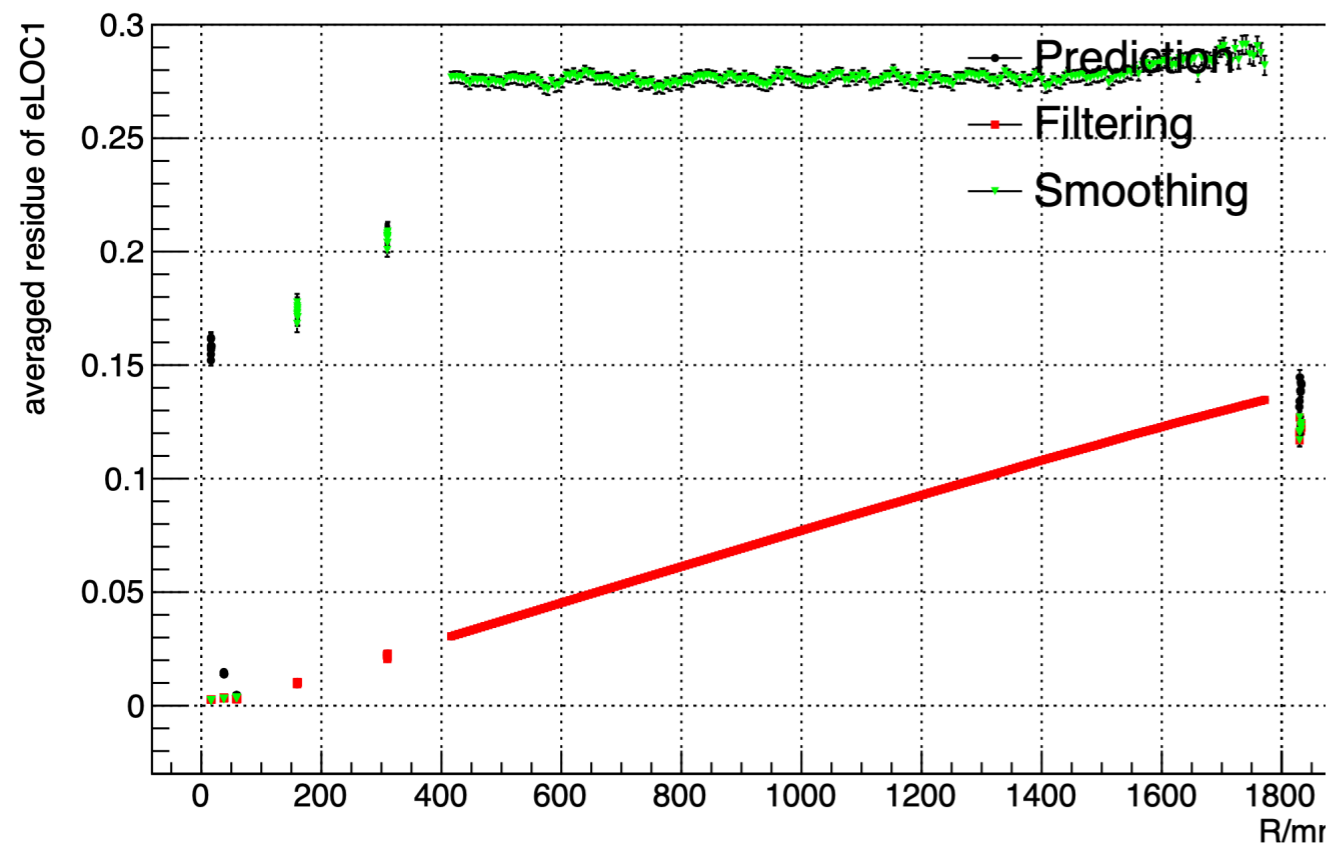
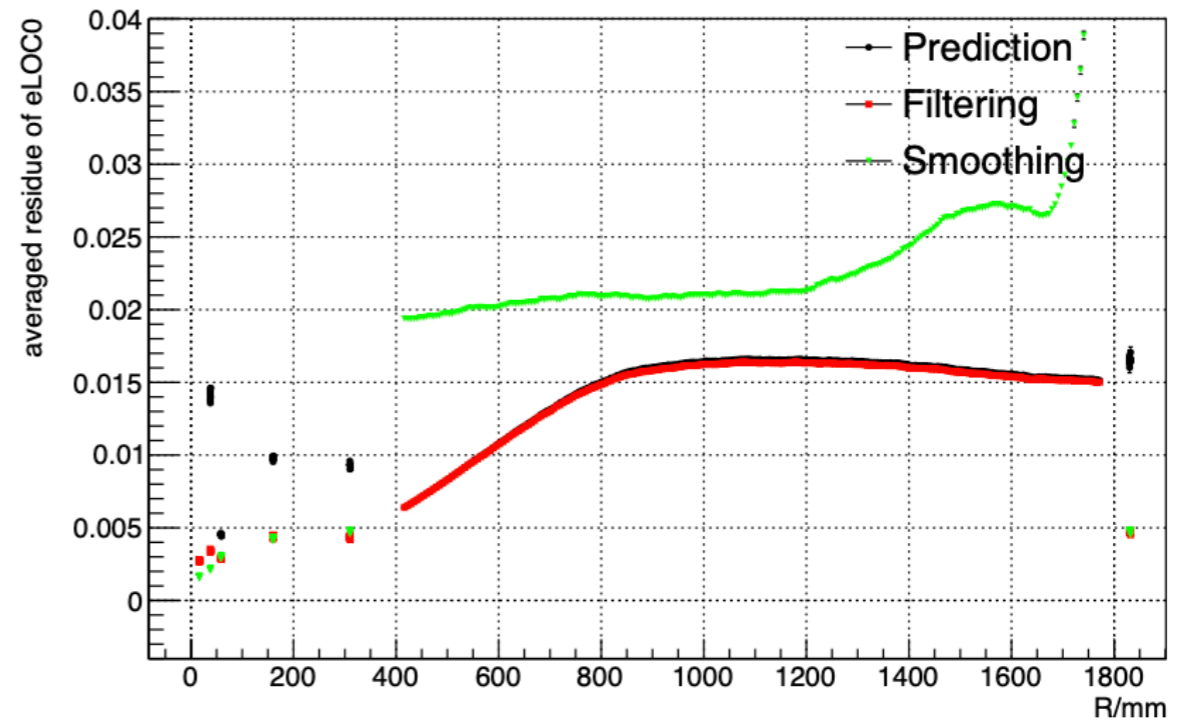


With materials

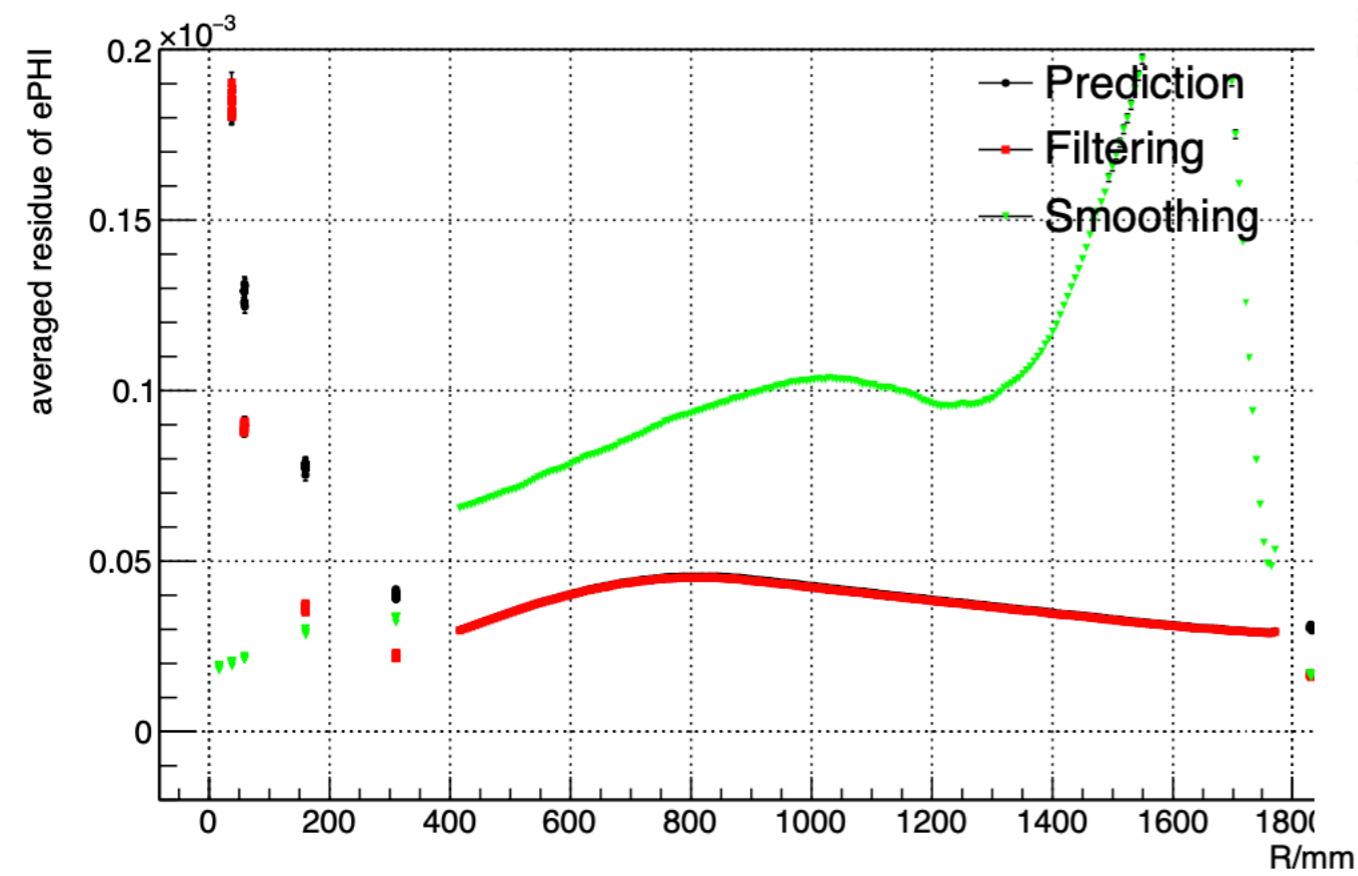
W/ materials



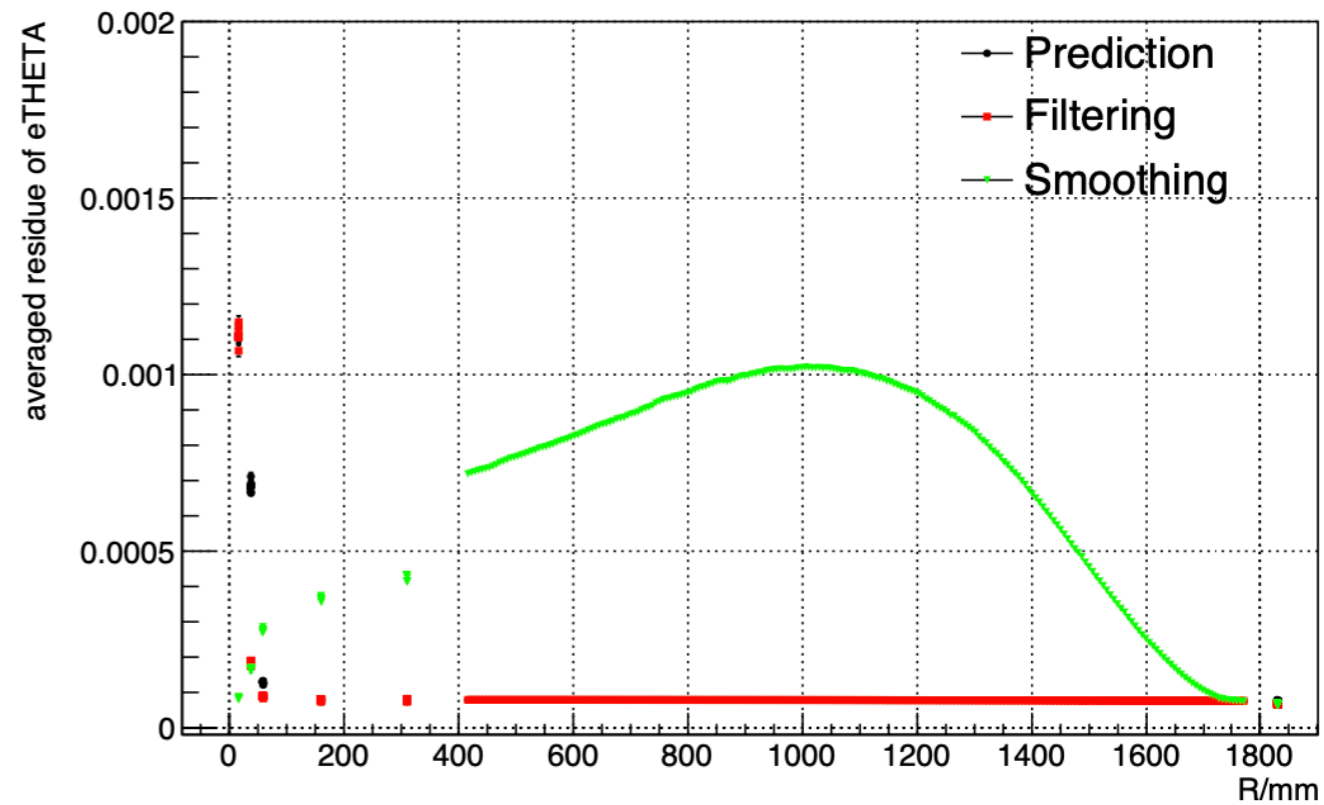
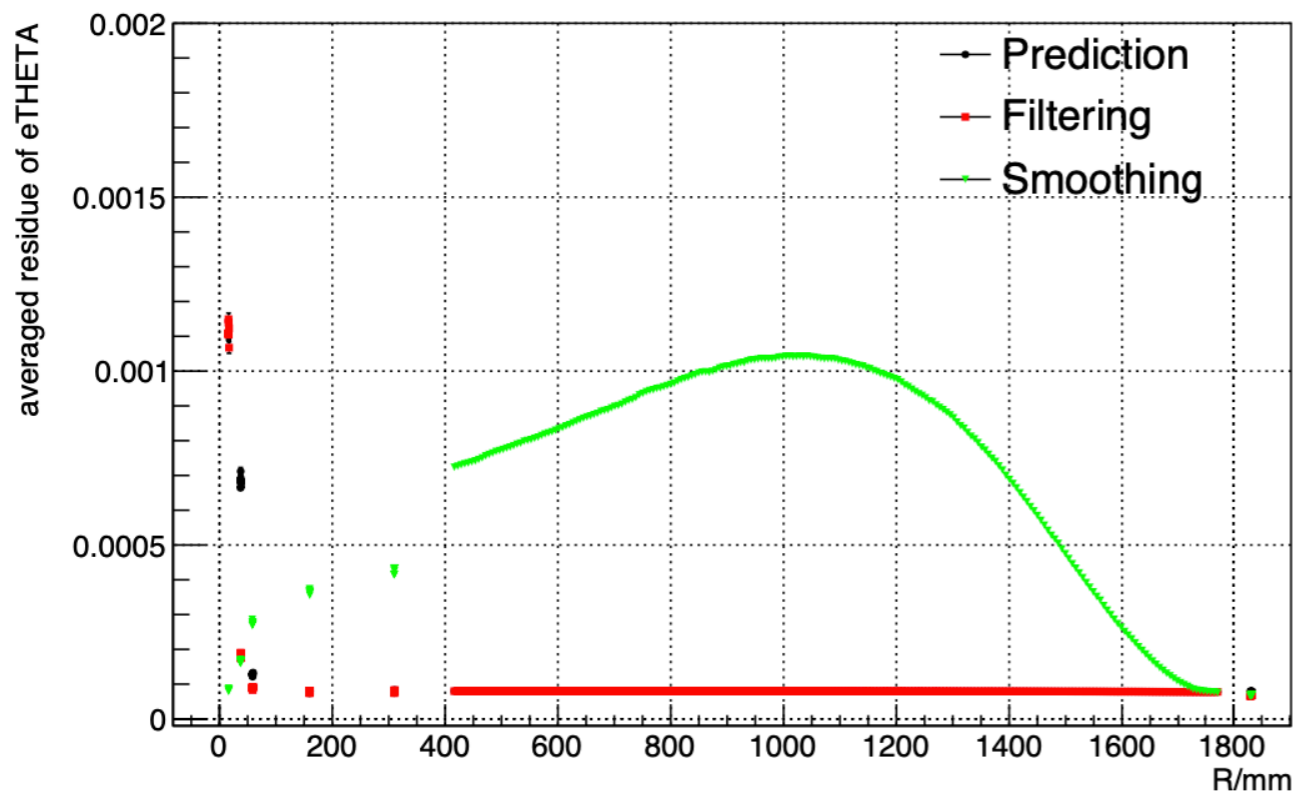
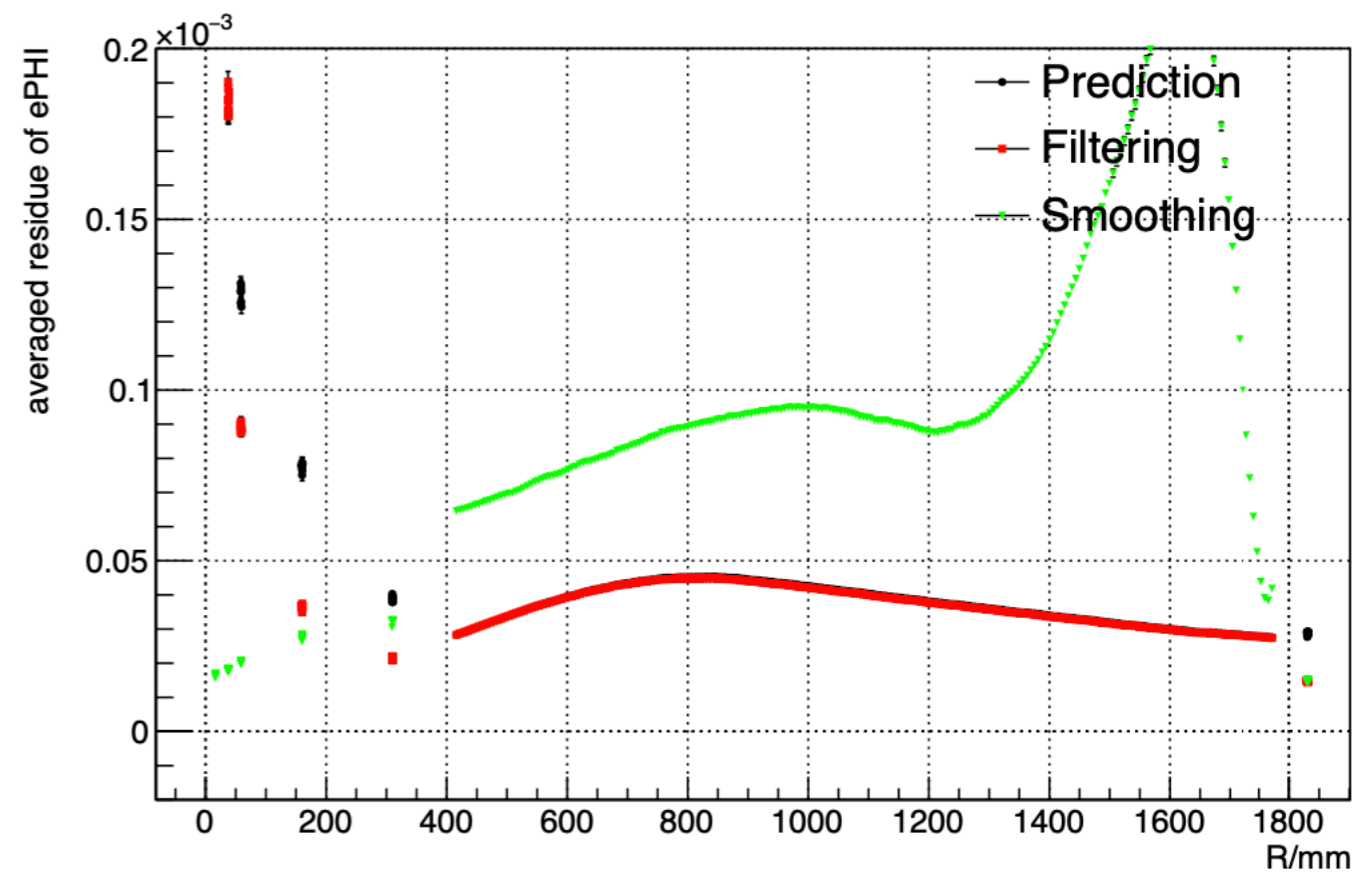
W/o materials



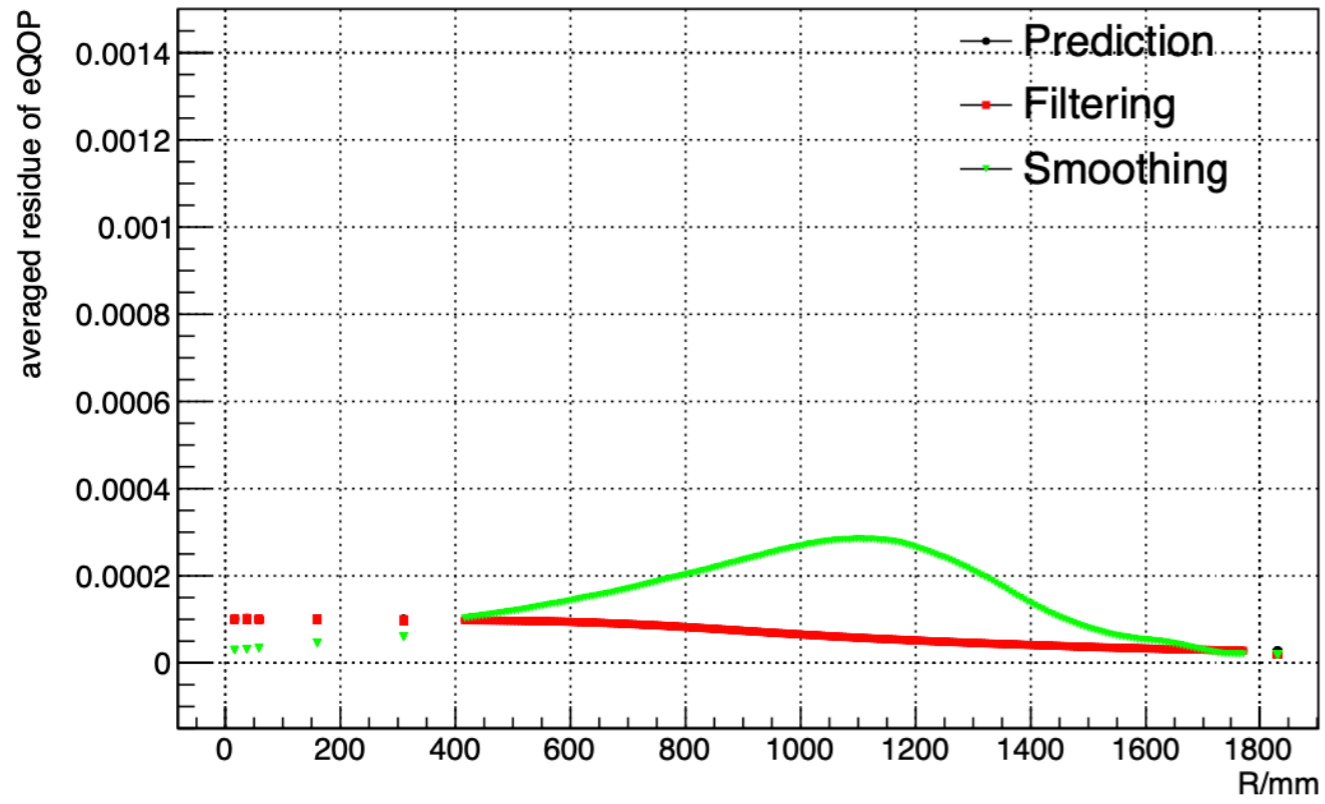
W/ materials



W/o materials



W/ materials



W/o materials

