



LHCb VeloPixel fast simulation

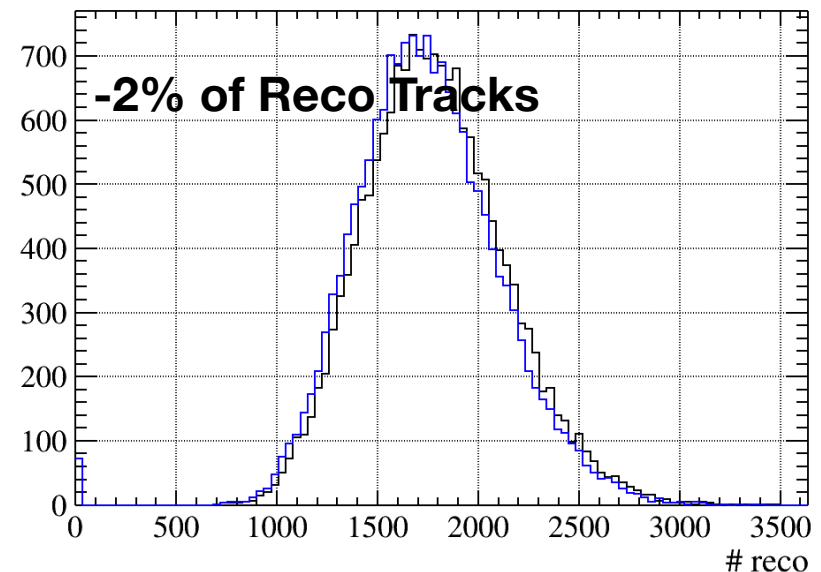
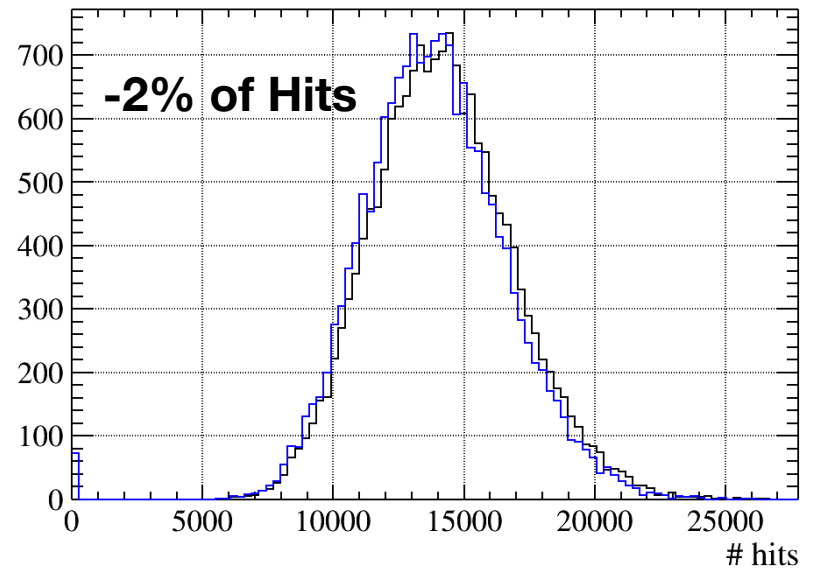
Serena Maccolini, Angelo Carbone, Tommaso Fulghesu
TIMESPOT meeting - WP4

9 November 2020

Add Trench Efficiency

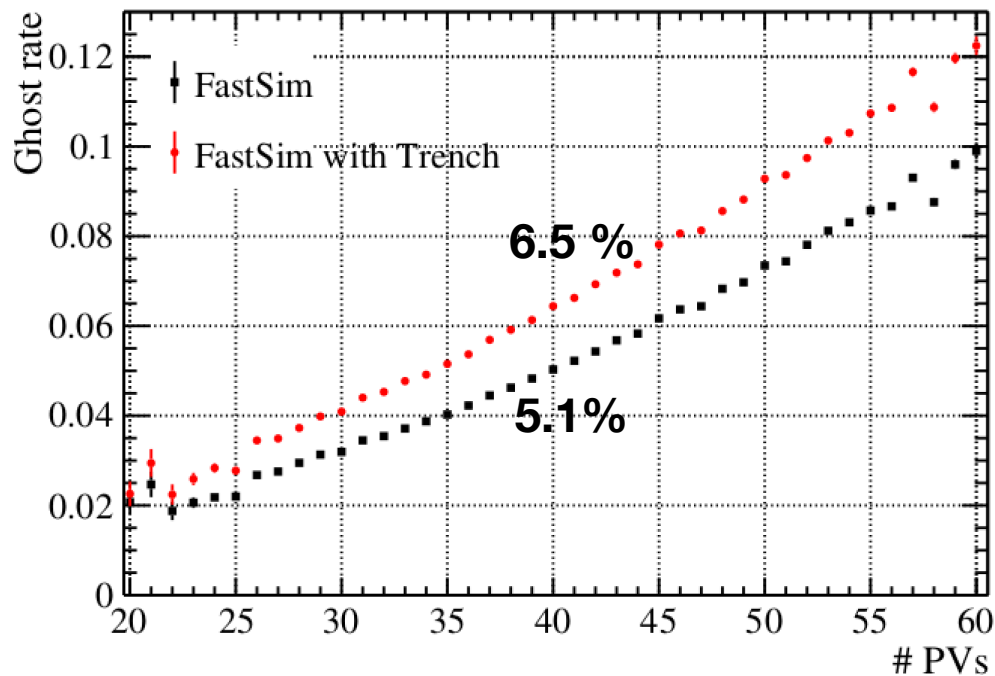
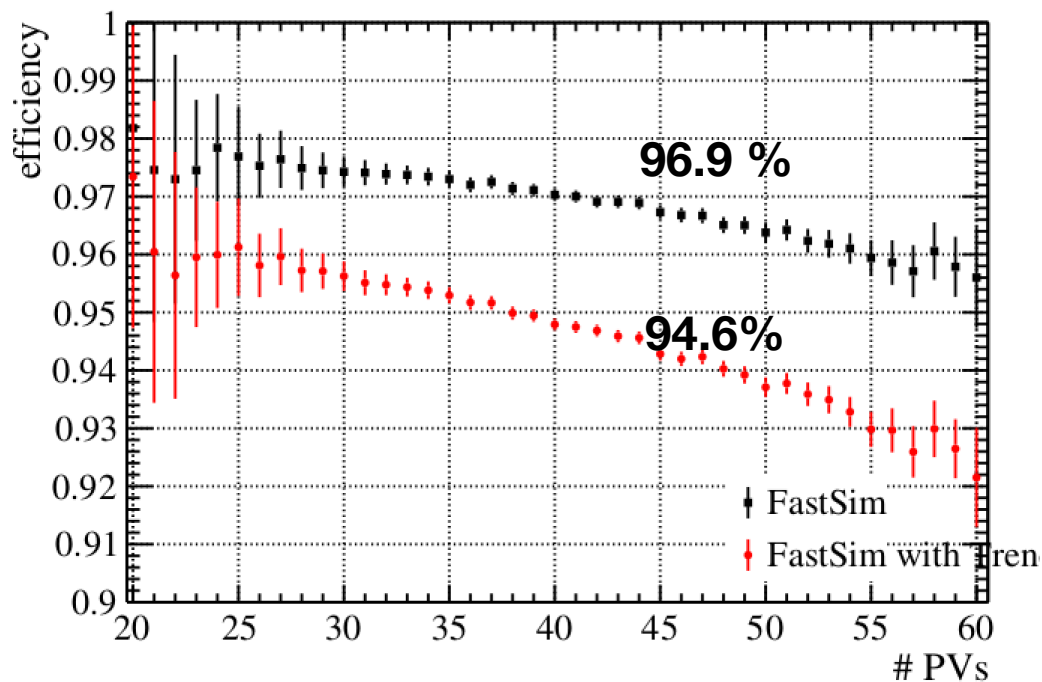
- Accounting for holes within each pixel $5 \times 40 \times 180$ of $55 \times 55 \times 200$ μm :
no changes in performances (due to diffusion, i.e. dx depending on dz)
- Worst case scenario = trench of $5 \times 40 \times 200$ with no diffusion.

—no Trench
—with Trench

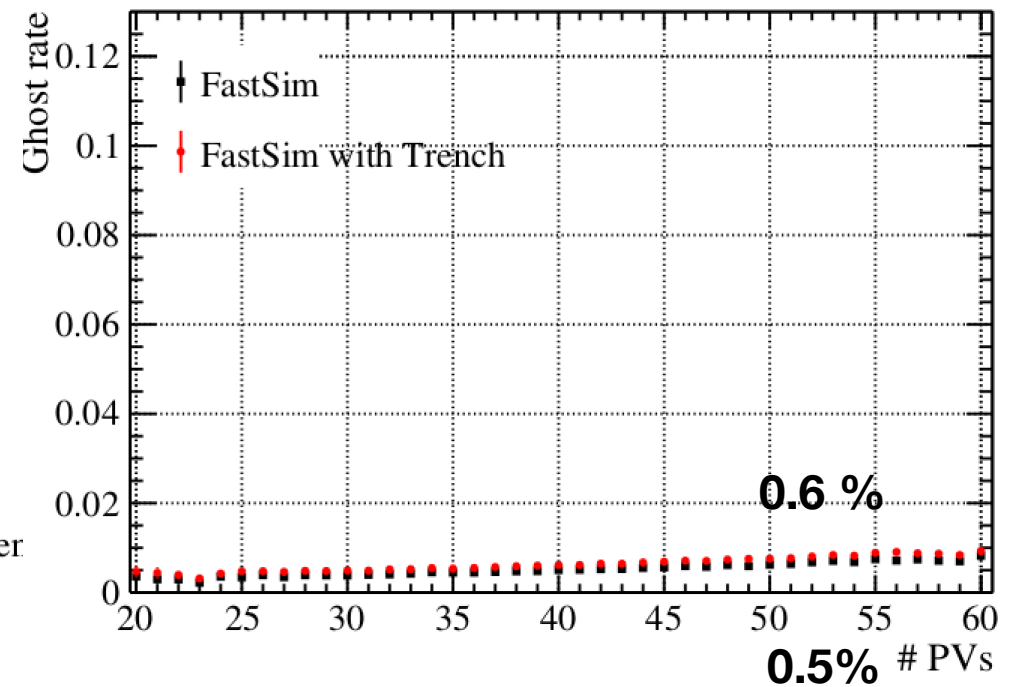
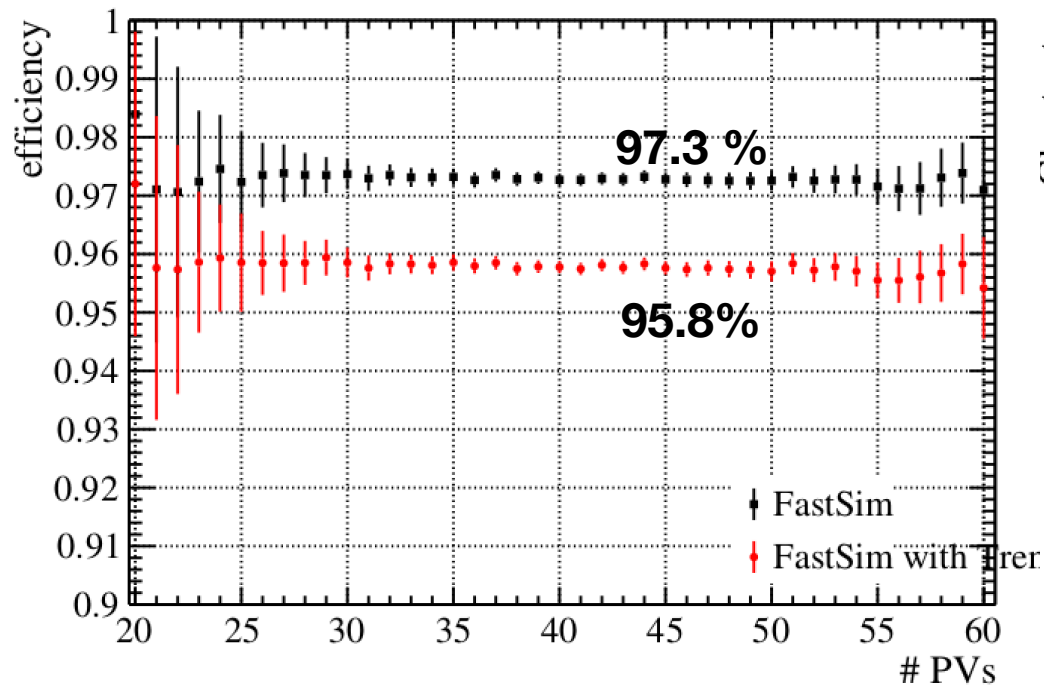


Add Trench Efficiency

- Performances

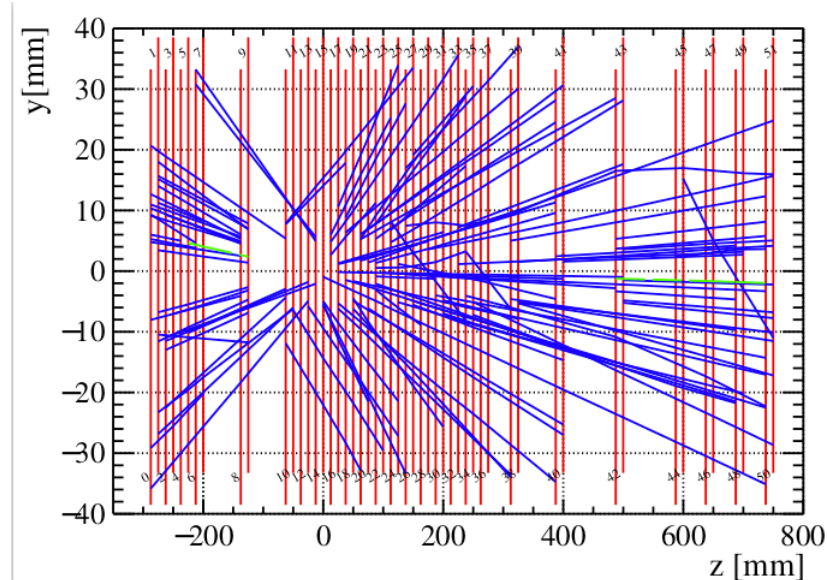
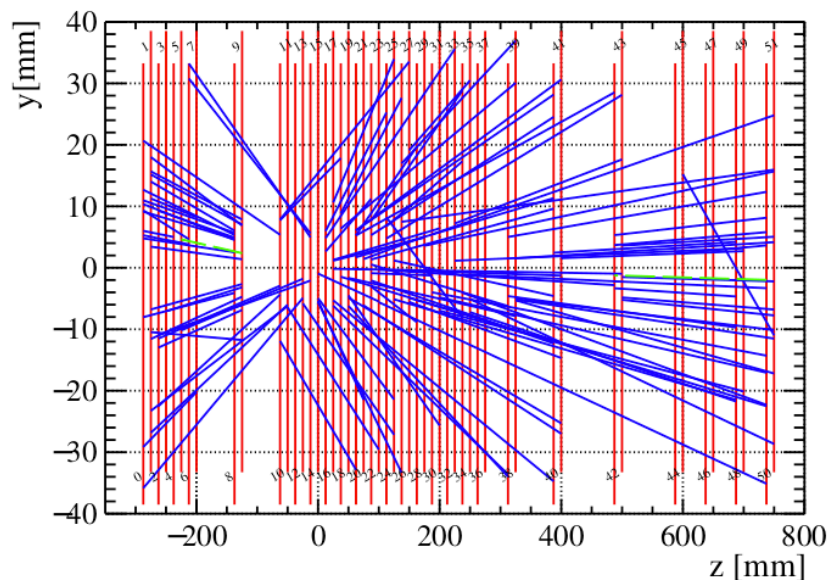
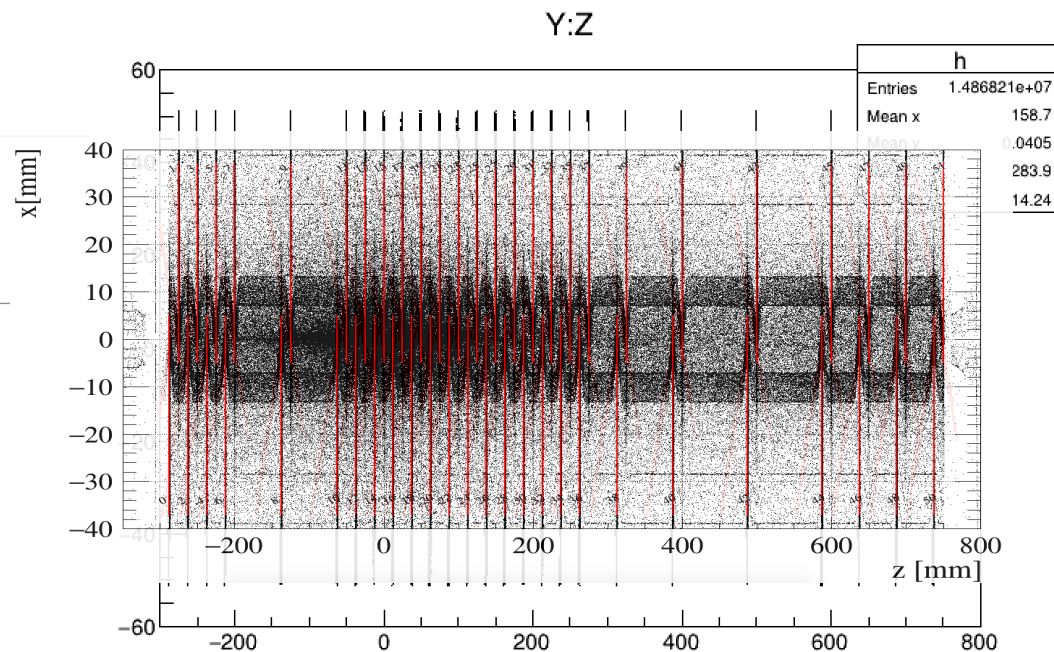
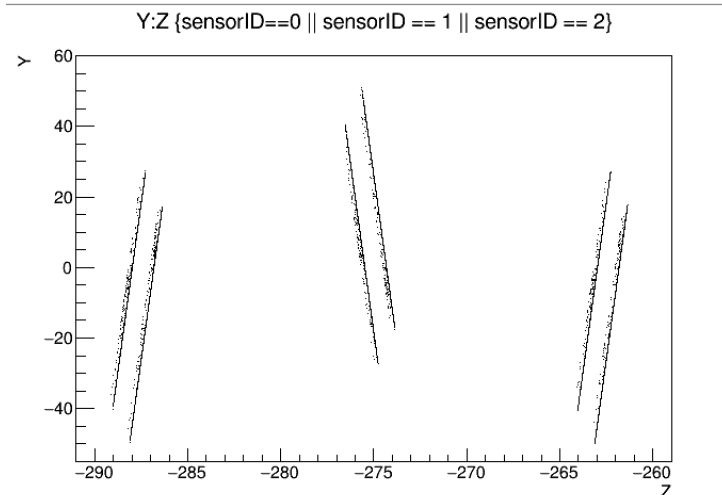


Add Trench Efficiency + timing



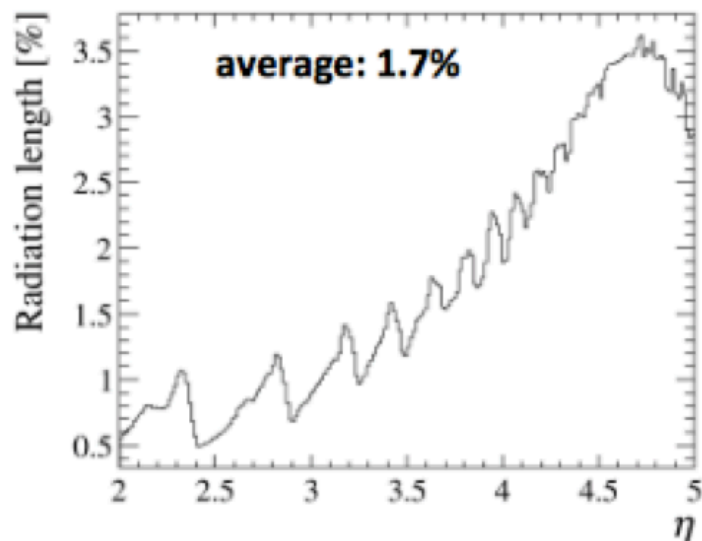
Benedetto inputs...

- Ongoing



Talk to the Velo U2 group

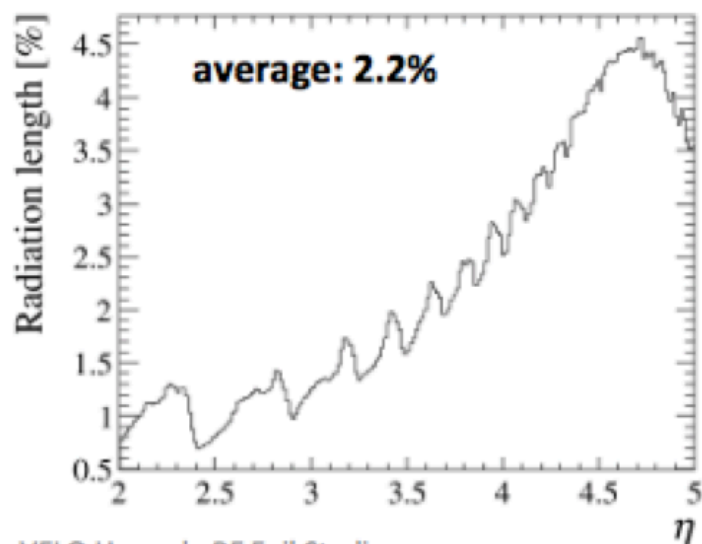
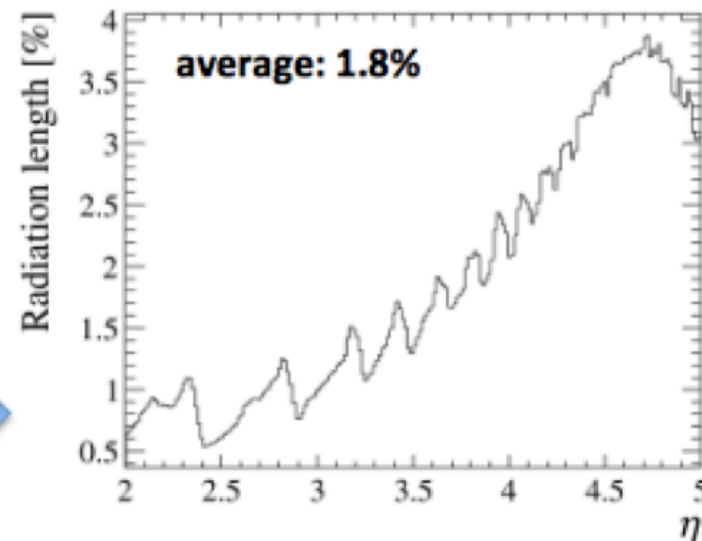
Traced rays from fixed origin (0,0,0)



Full
corrugations



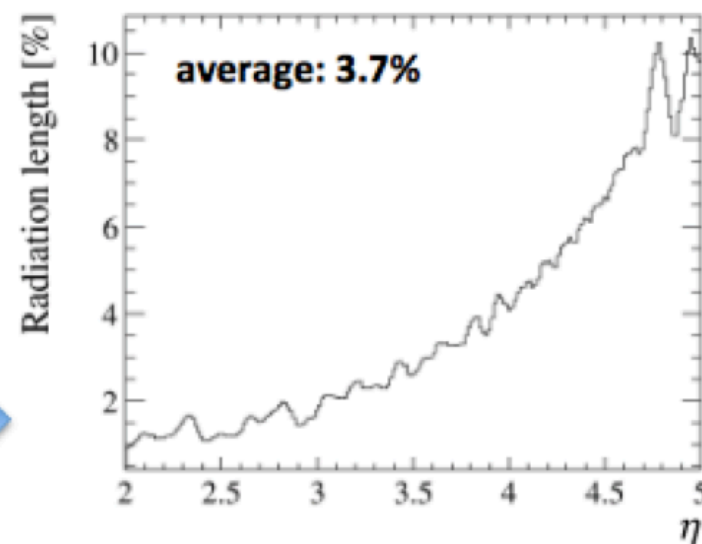
Half y
corrugations



Quarter y
corrugations



No y
corrugations



VELO Upgrade RF Foil Studies

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