Revised PHQMD analysis for trigger efficiency

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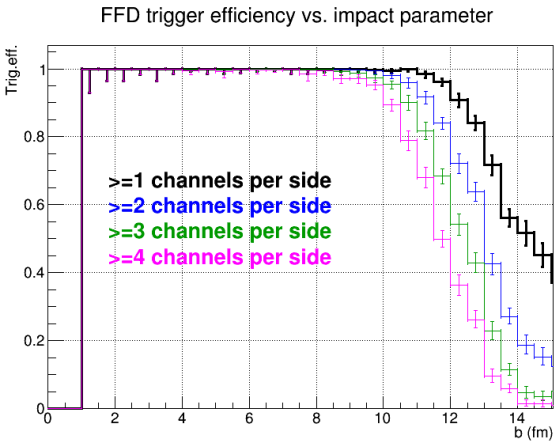
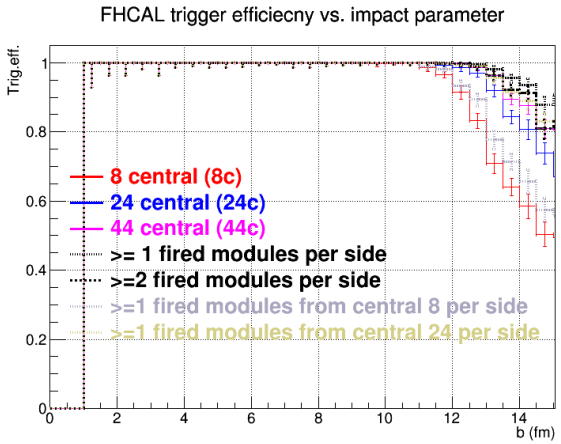
Outline

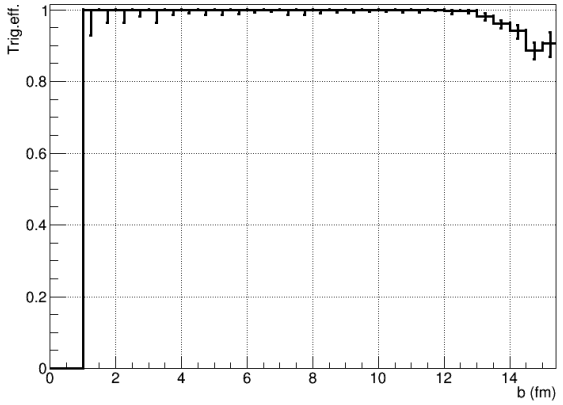
- Used DCM-QGSM-SMM and PHQMD models for MPD trigger efficiency studies
- Recently it was found that PHQMD code was run with wrong masses of the fragments (x3 lower) + fragments had a limited lifetime with undefined decay modes (fragments were killed by Geant-4)
- Produced two private productions using the same input PHQMD files:
  - ✓ with correct masses of the fragments
  - ✓ with reduced masses of the fragments and limited lifetime (previously presented results)
- Present comparison of results

Trigger efficiency vs. impact parameter

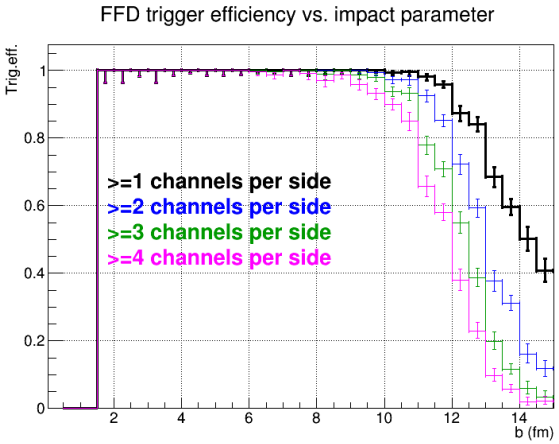
- Previous results

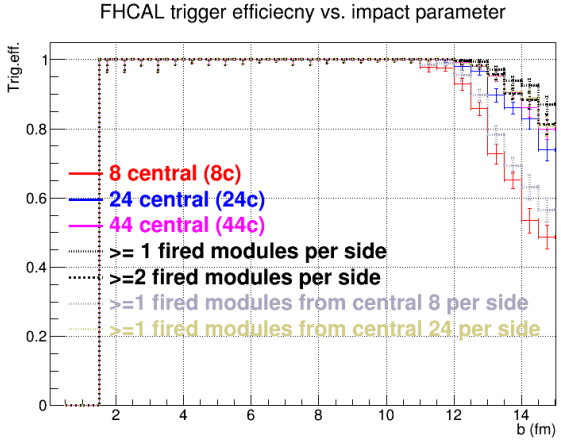


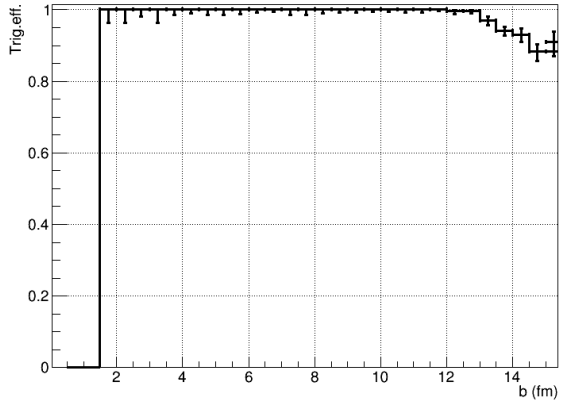




- Correct code

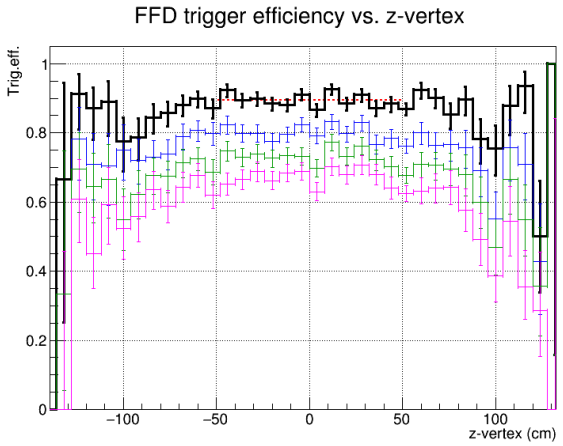


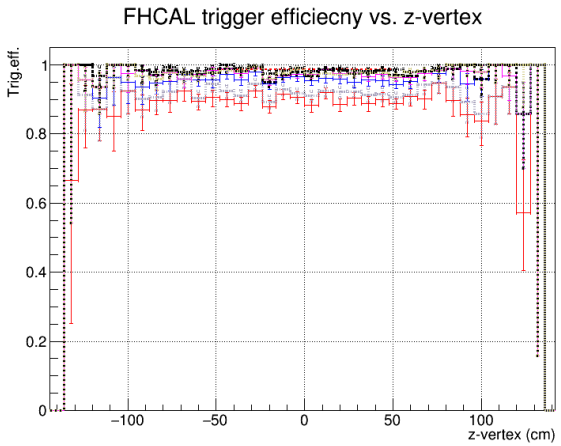


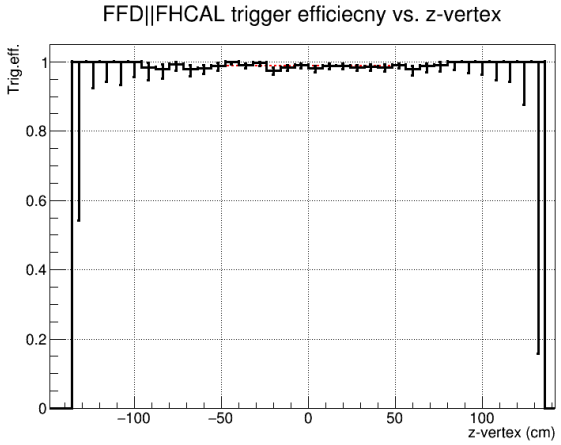


Trigger efficiency vs. z-vertex

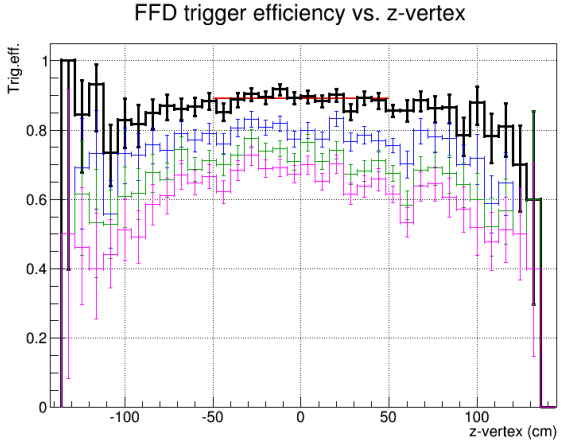
- Previous results

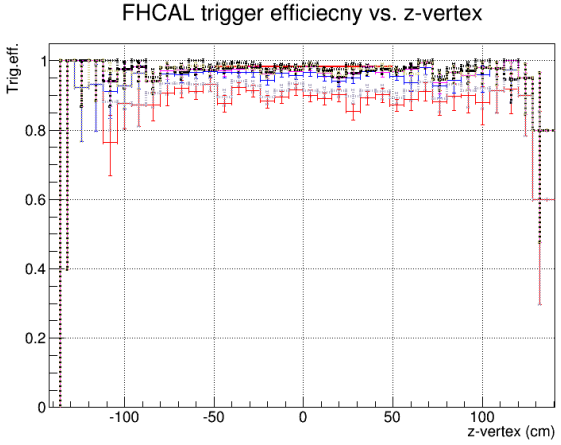


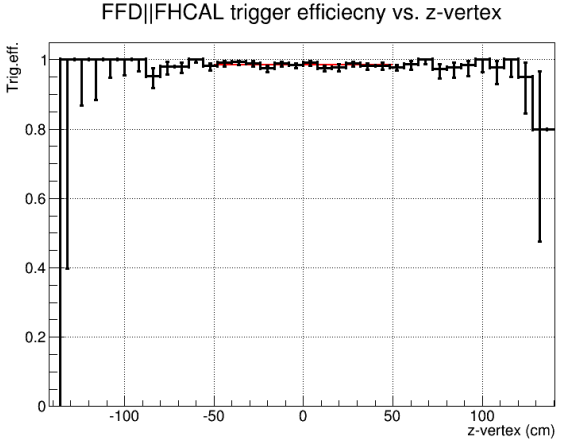




- Correct code







Conclusions

- Observe marginal changes in the MPD trigger performance
- The main conclusions for PHQMD model remain to be the same
- Correct code is used for mass production Requests 27 and 29