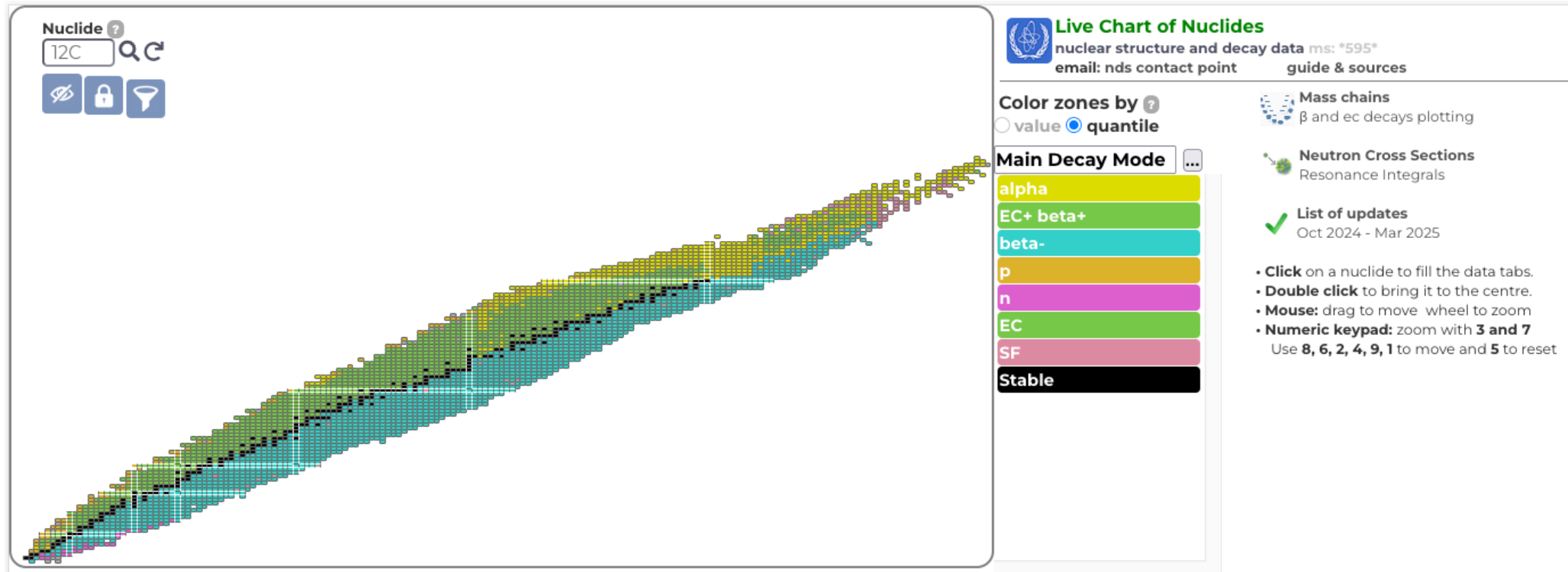


Centrality determination

SMASH afterburner vs PHQMD

Cluster production

Only included nuclei
labeled as STABLE
(in black)



<https://www-nds.iaea.org/relnsd/vcharthtml/VChartHTML.html>

Cluster production

PHQMD

- Clusters are produced during the interaction (including physically impossible clusters)
- In the unigen conversion, one can filter and keep only the clusters present in cluster-table.dat file → user-defined
- The discarded clusters are broken into single protons and neutrons

1H	1000010010	1	0	0	0	1
2H	1000010020	1	1	0	0	1
3He	1000020030	2	1	0	0	1
4He	1000020040	2	2	0	0	1
6Li	1000030060	3	3	0	0	1
7Li	1000030070	3	4	0	0	1
9Be	1000040090	4	5	0	0	1
10B	1000050100	5	5	0	0	1

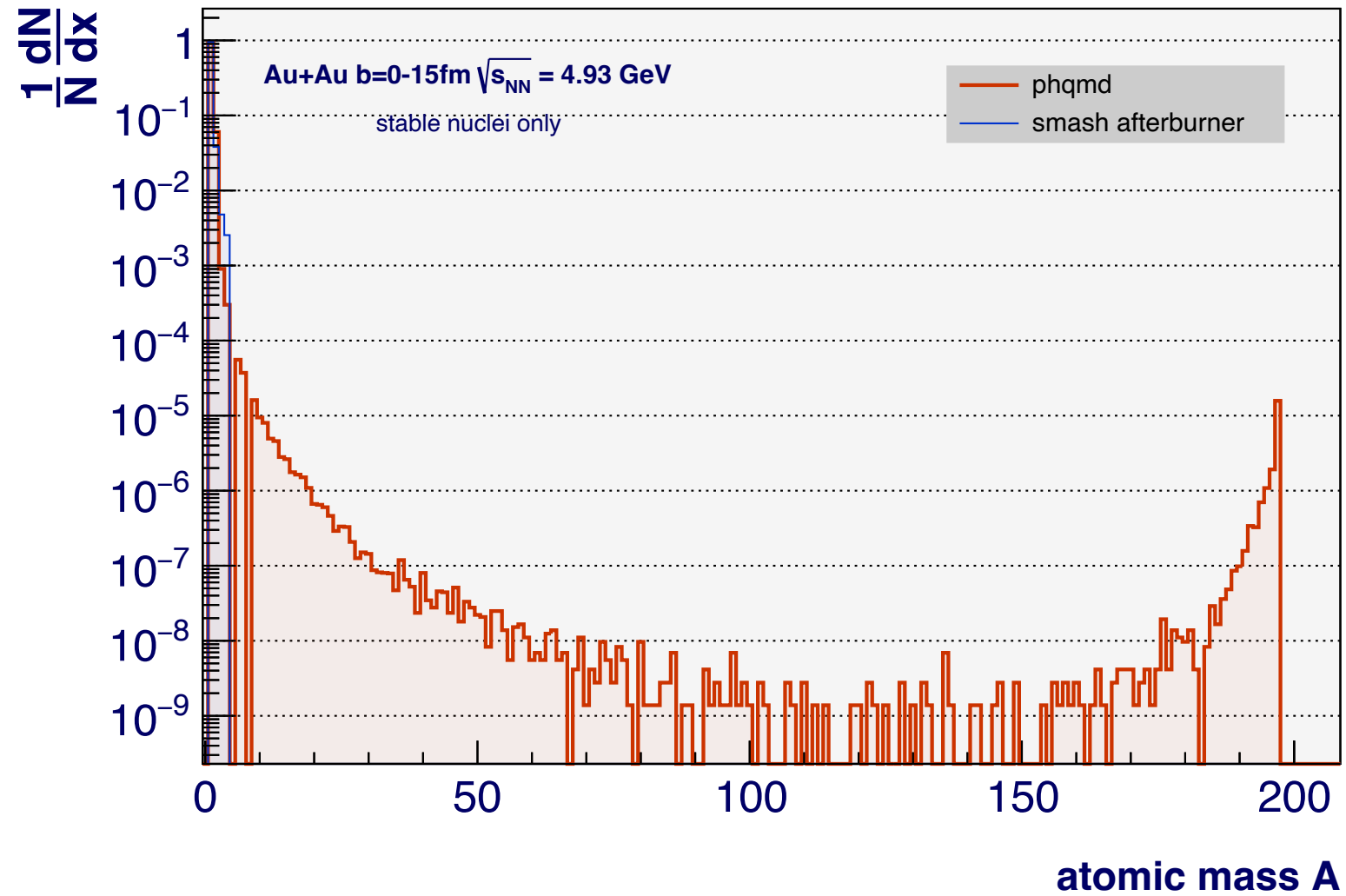
203Tl	1000812030	81	122	0	0	1
205Tl	1000812050	81	124	0	0	1
206Pb	1000822060	82	124	0	0	1
207Pb	1000822070	82	125	0	0	1
208Pb	1000822080	82	126	0	0	1

SMASH

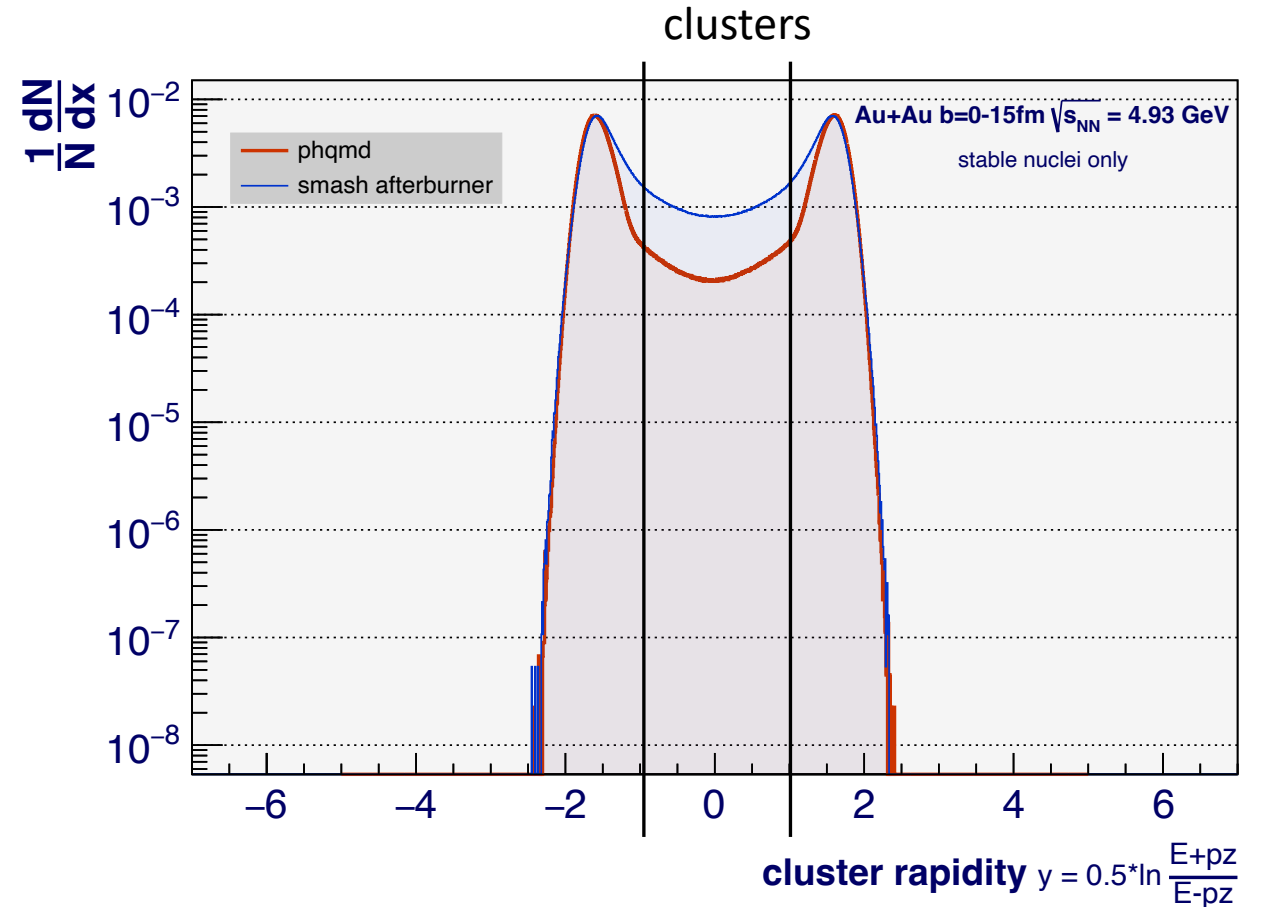
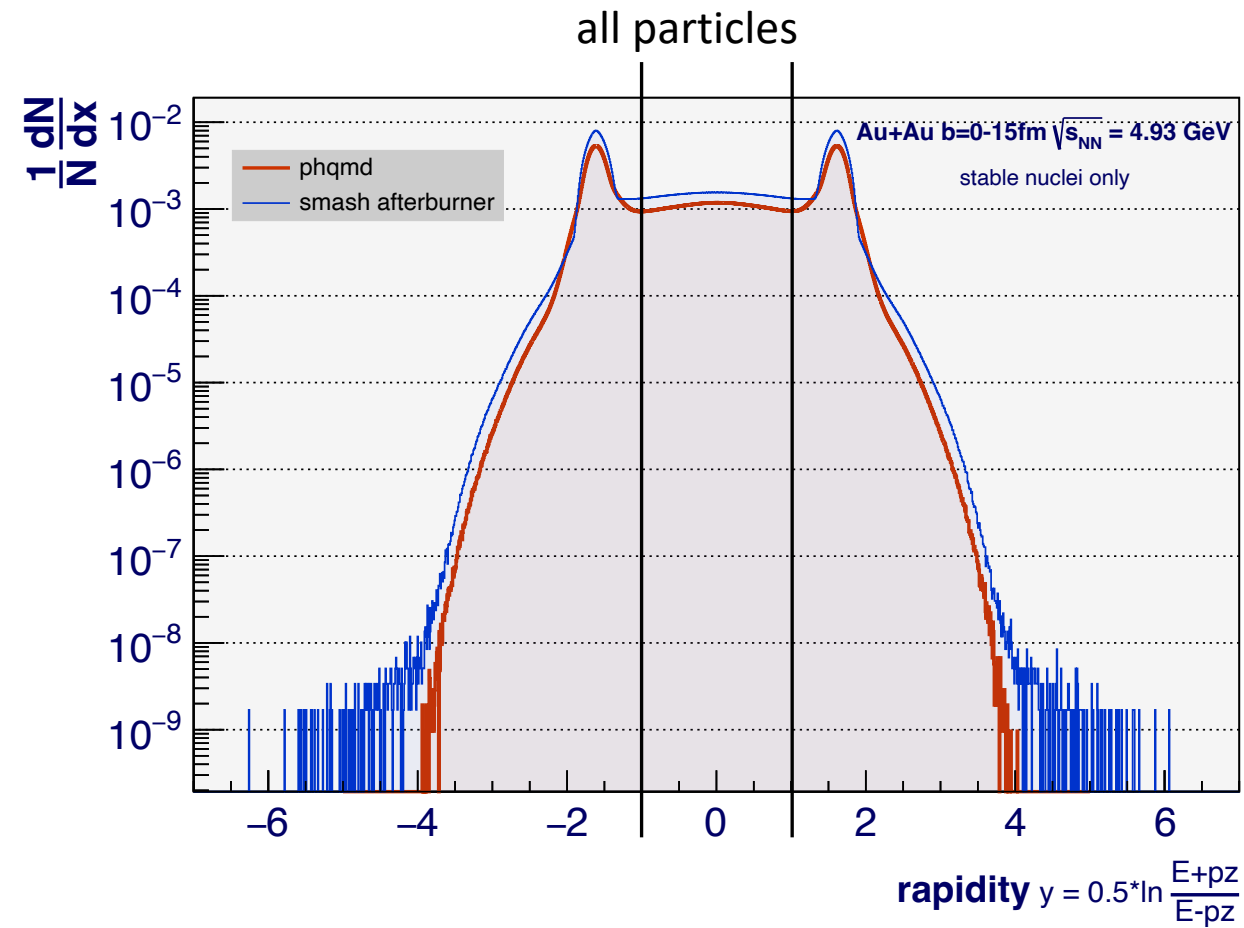
- Afterburner → clusters are produced after interaction ends
- At least one participant (ncoll != 0) per cluster

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Atomic mass A

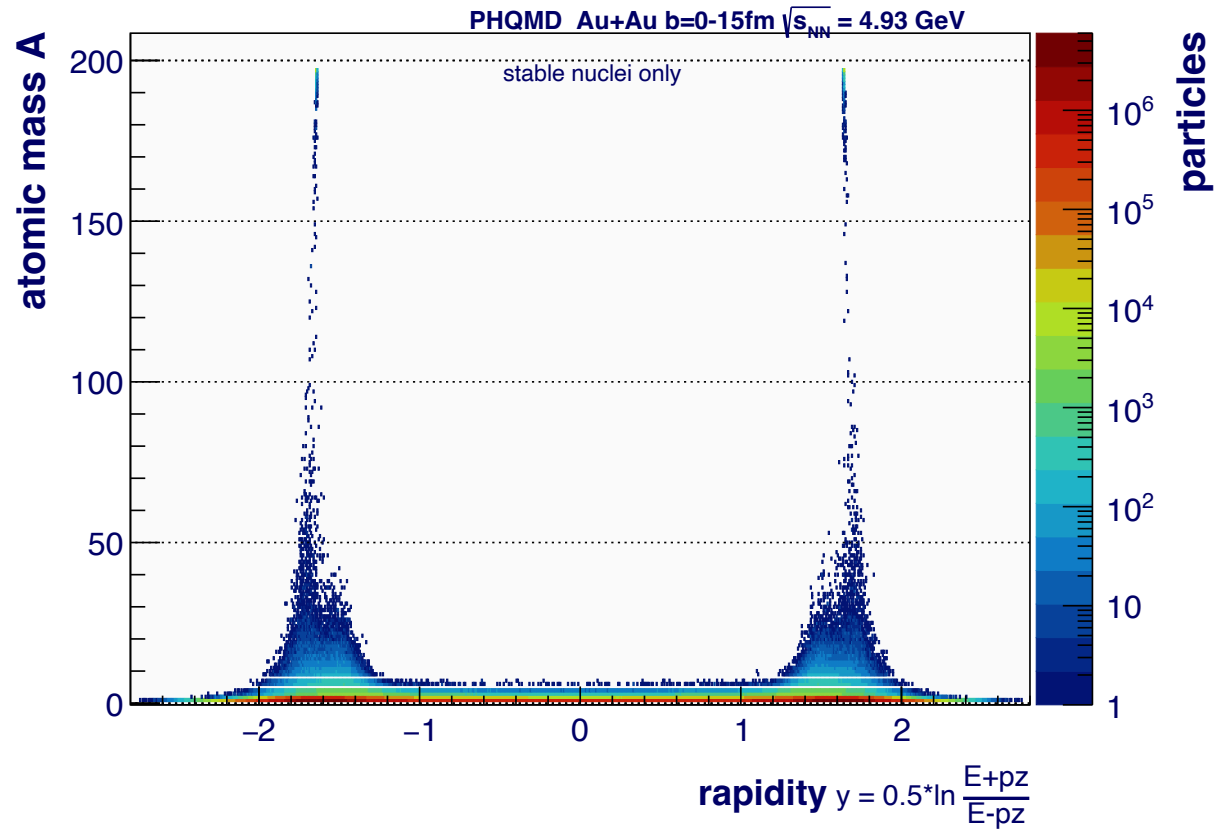


Rapidity

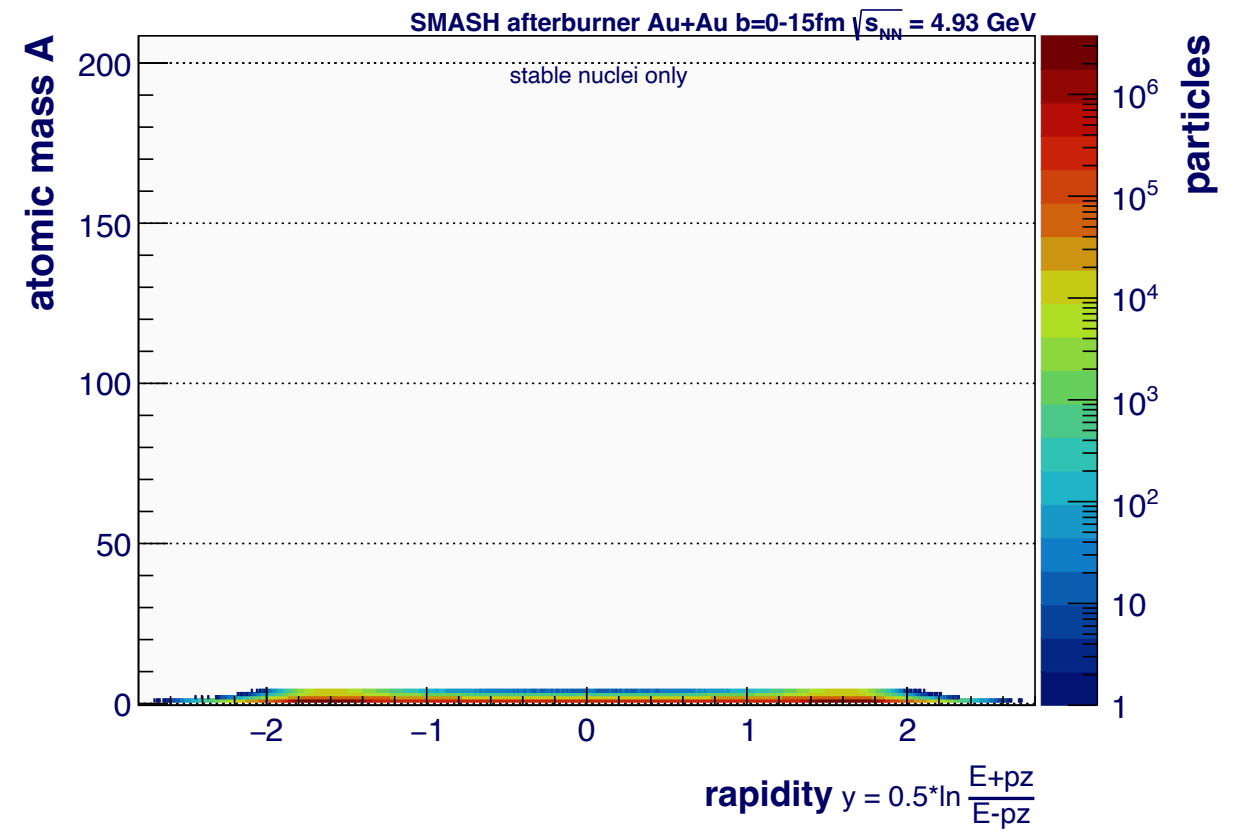


atomic mass A vs rapidity

PHQMD

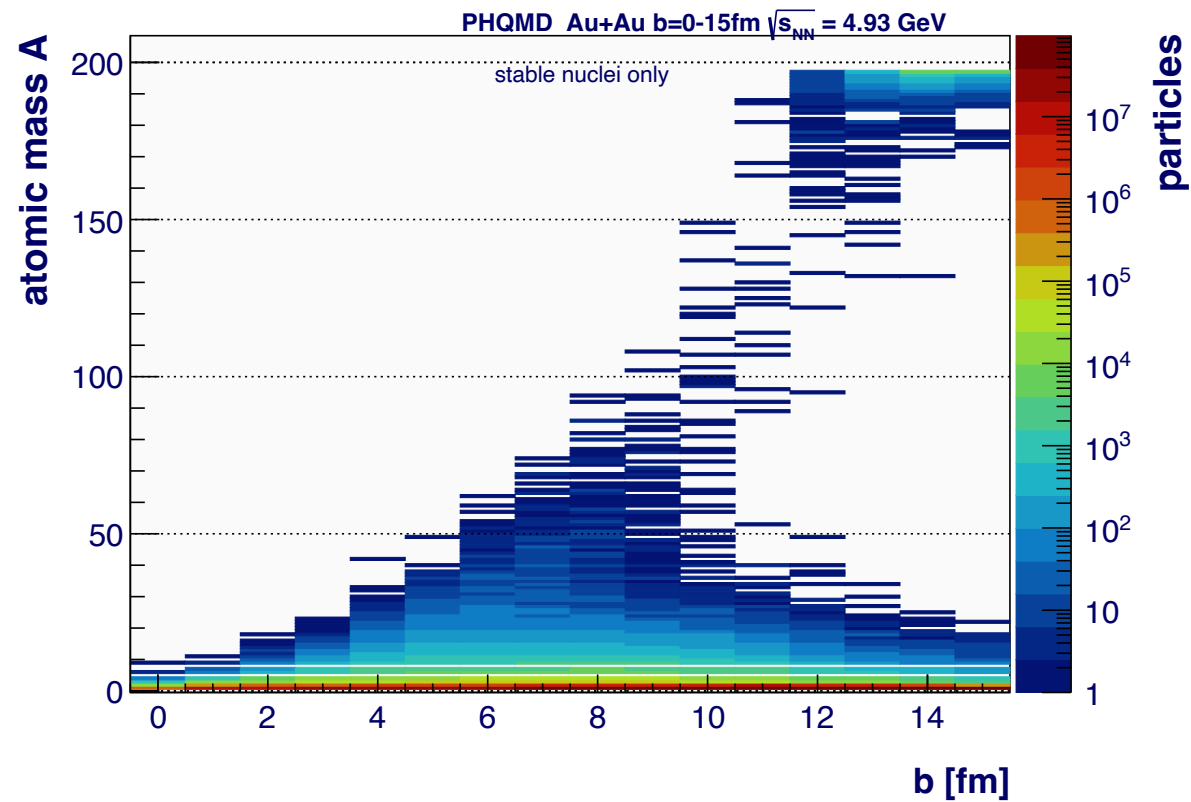


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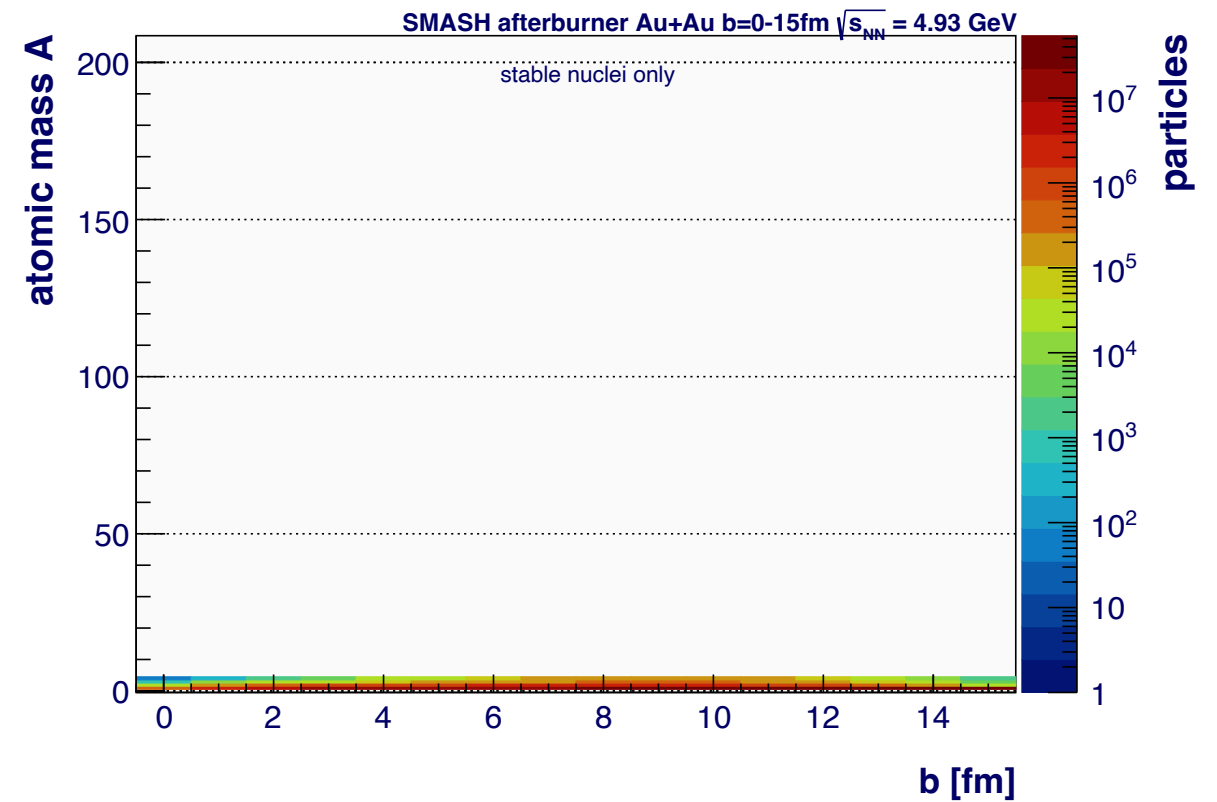


atomic mass A vs impact parameter b

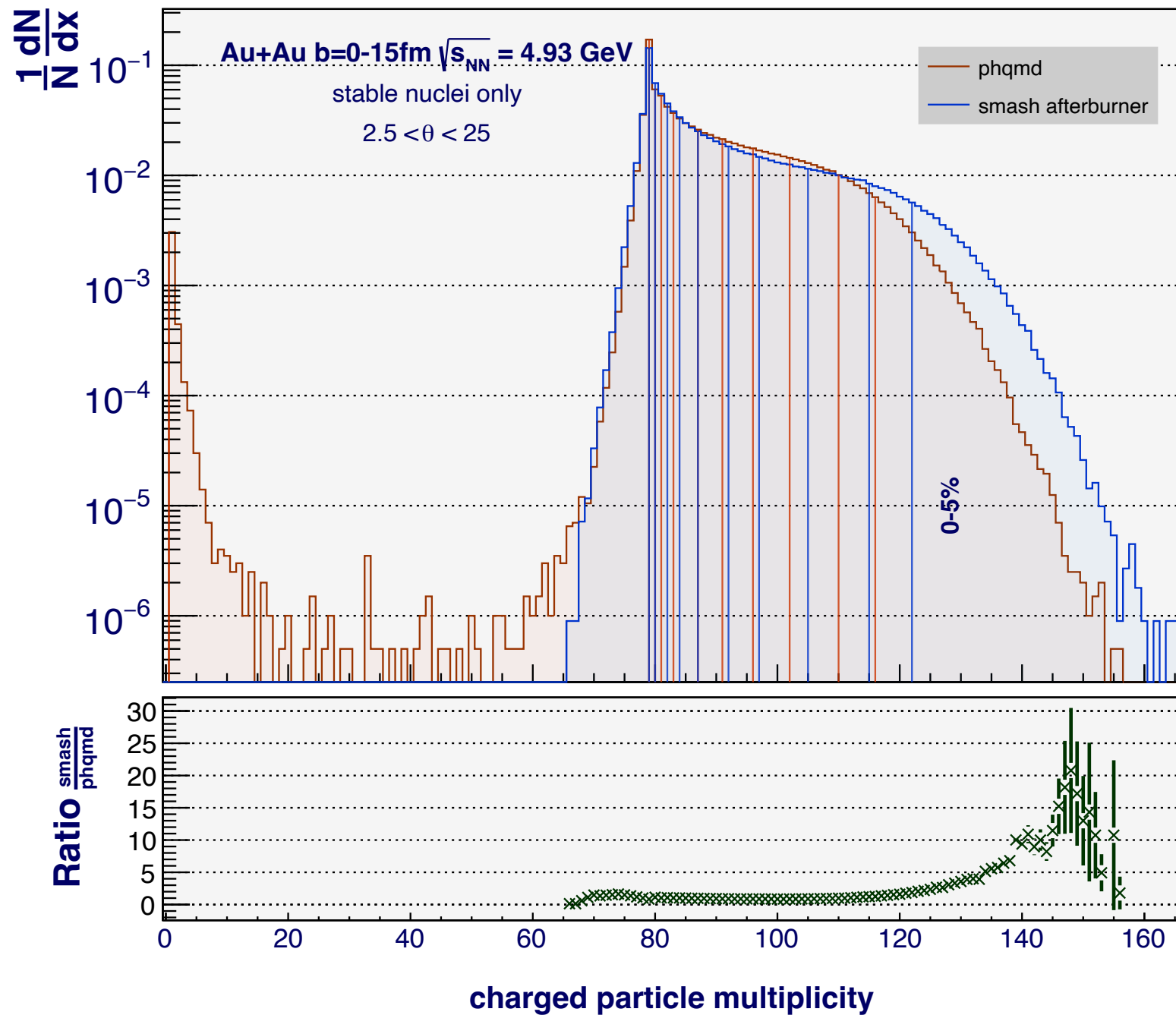
PHQMD



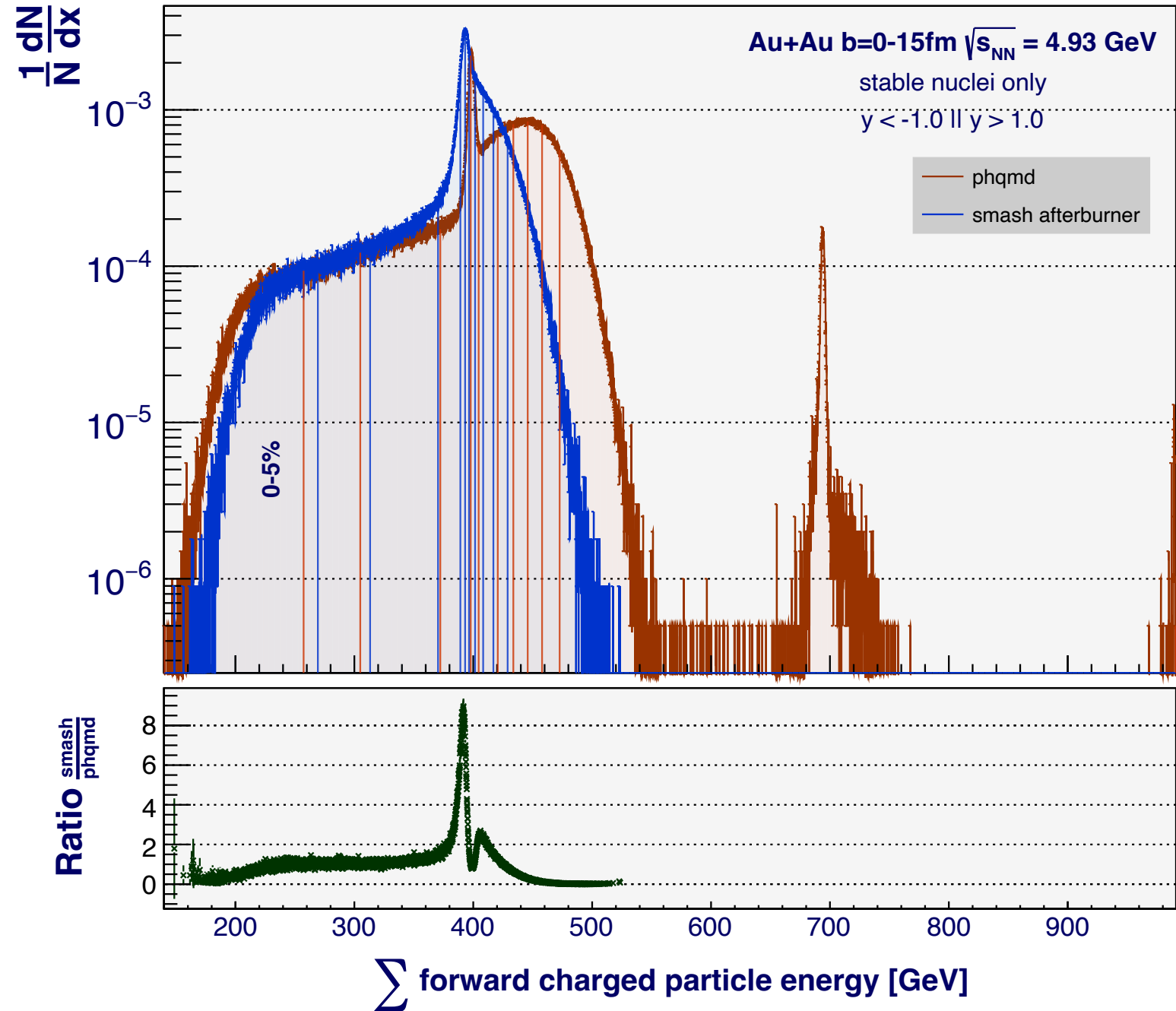
SMASH



Centrality: participants

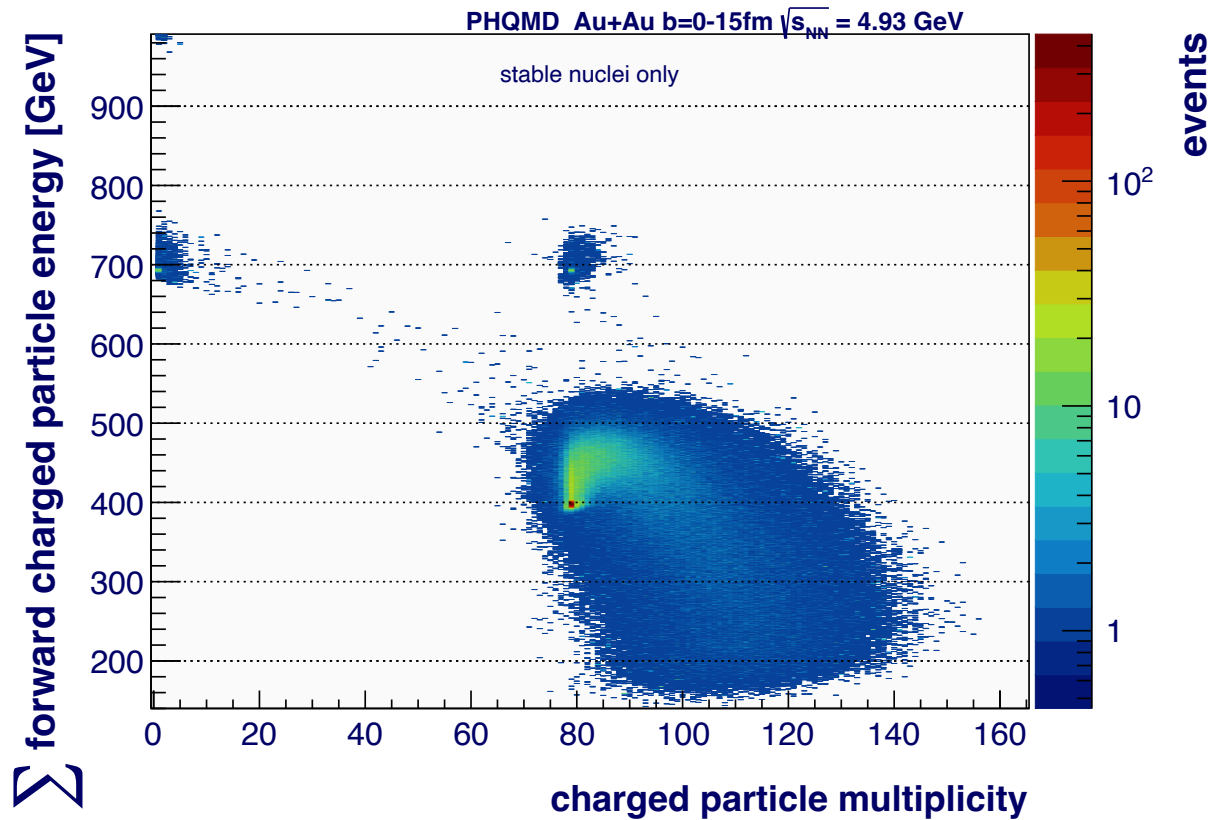


Centrality:
spectators

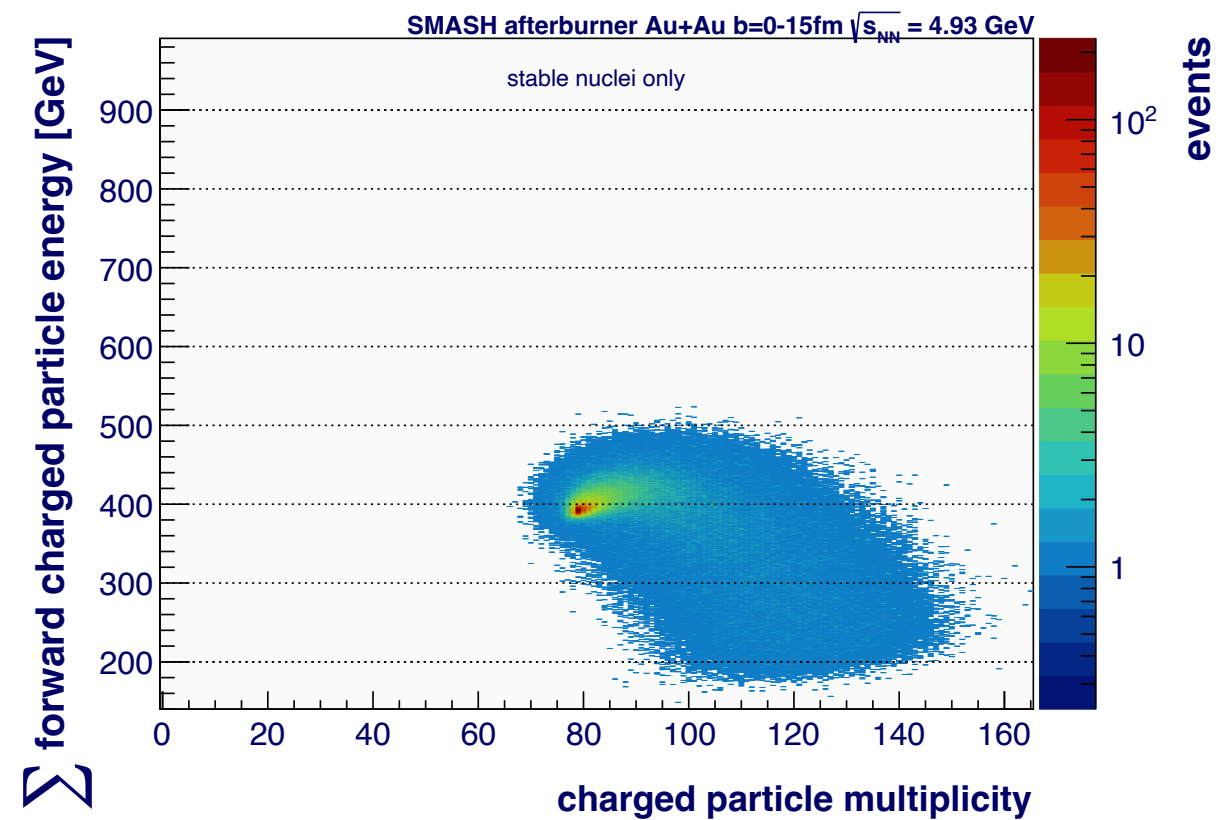


Forward energy vs charged particle mult

PHQMD

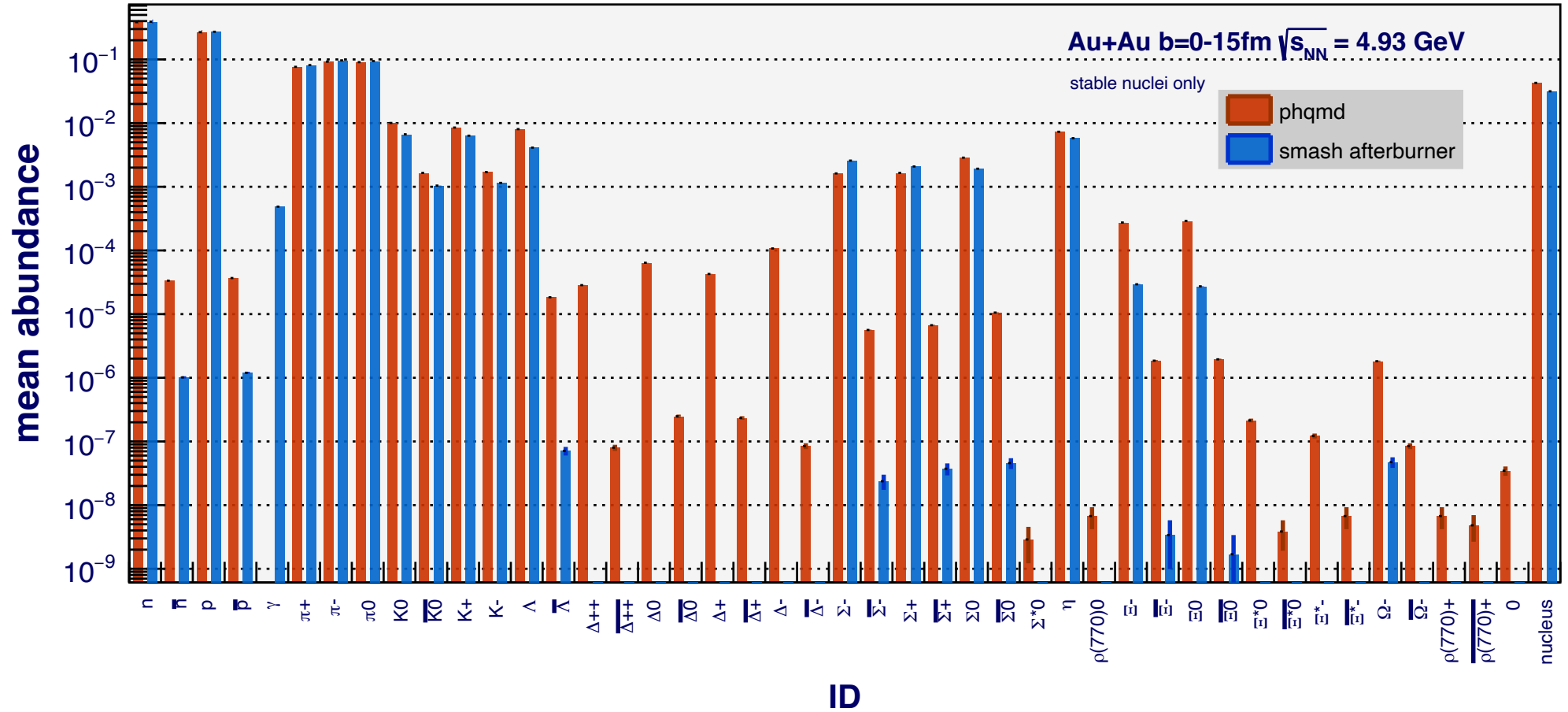


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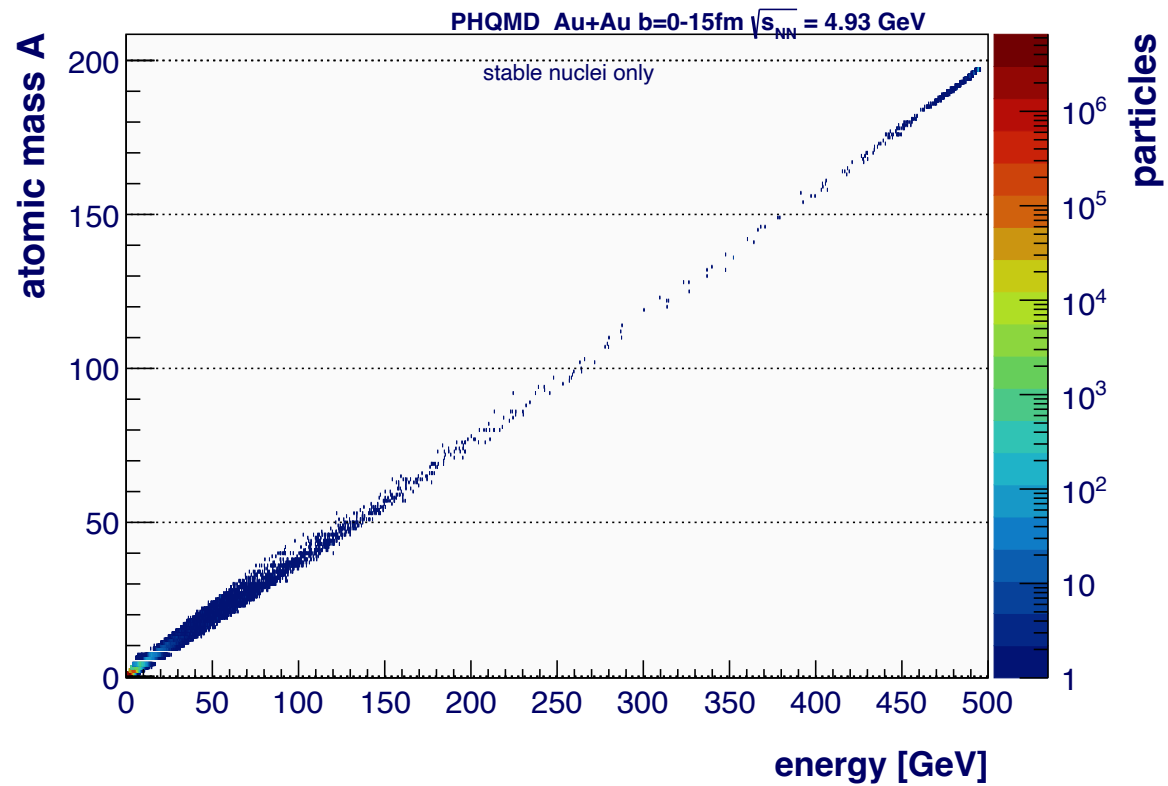
Backup

non-clusters ID

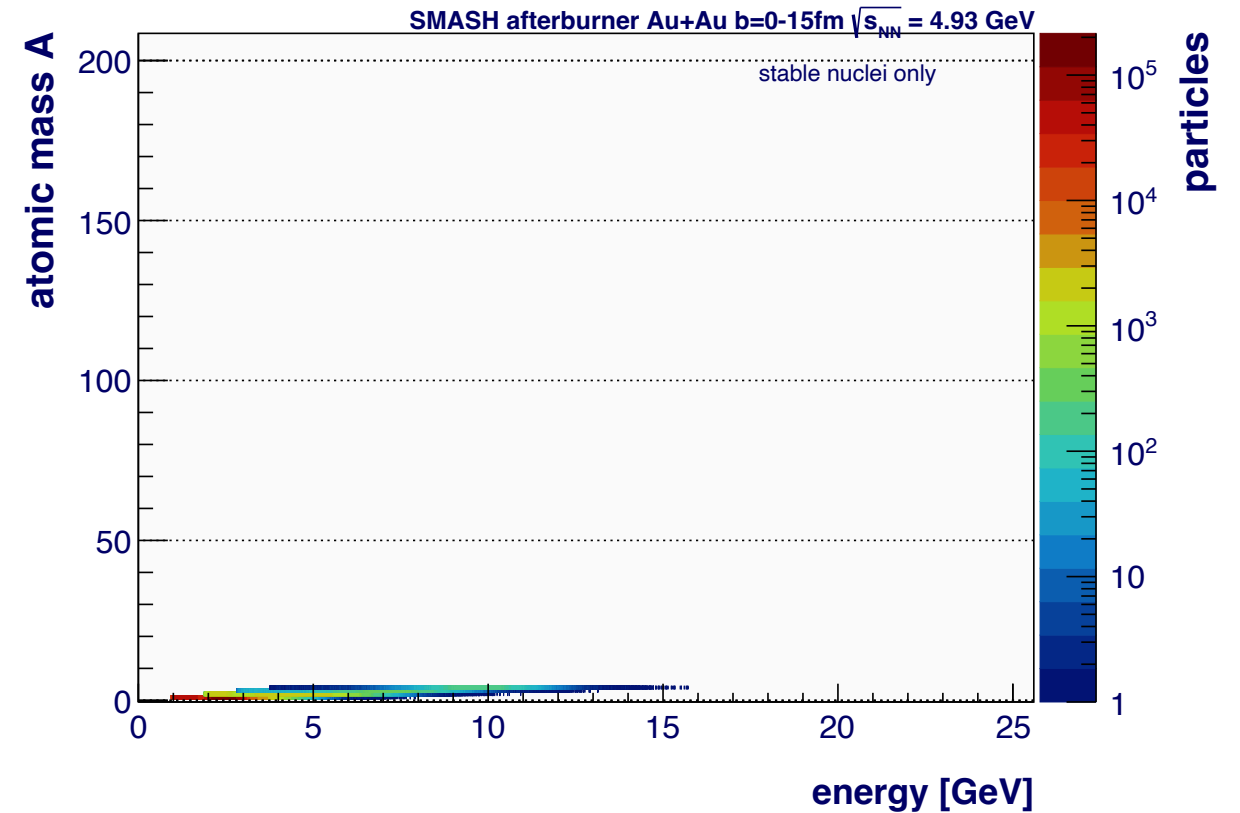


atomic mass A vs particle energy

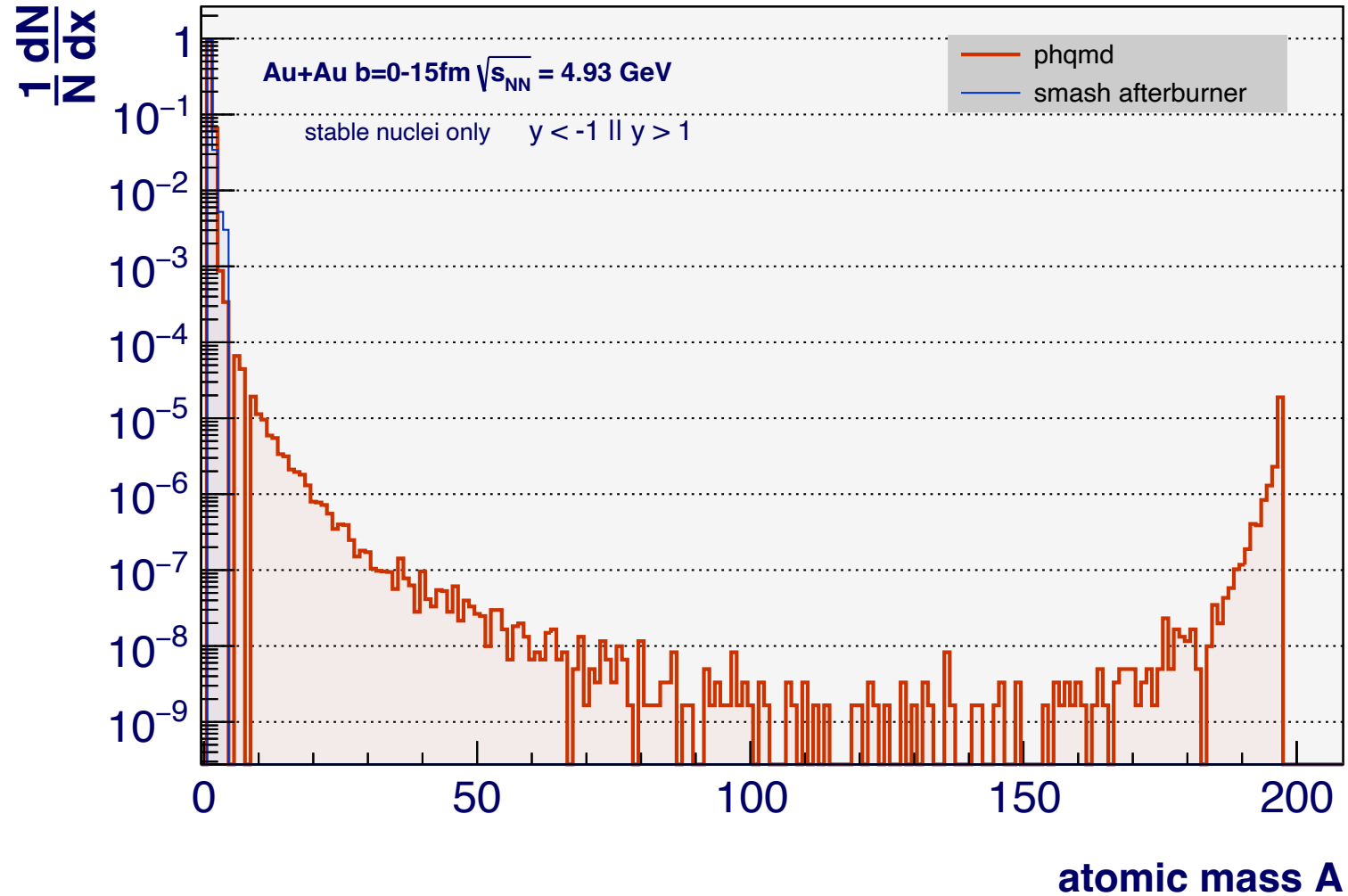
PHQMD



SMASH

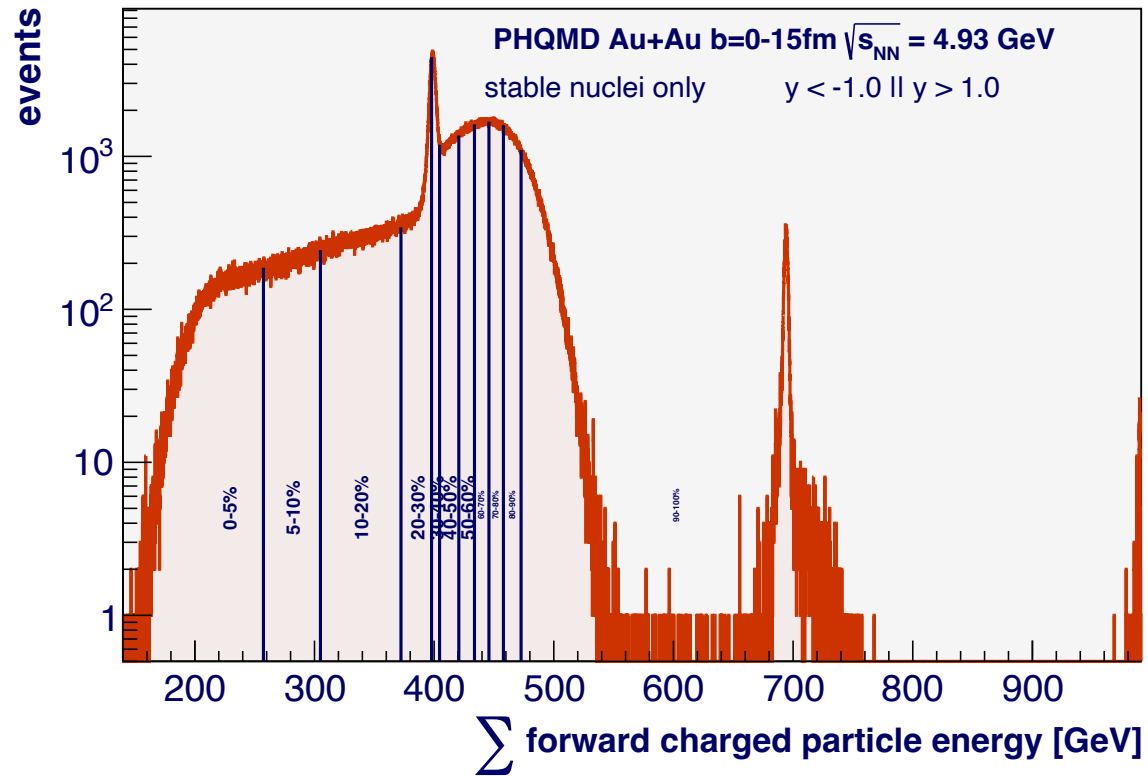


Atomic mass A in forward rapidity



Centrality: spectators

PHQMD



SMASH

