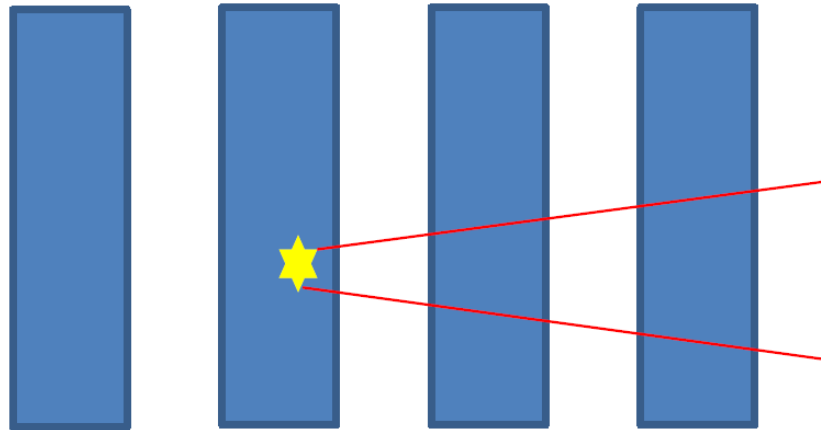


Neutron Detector Simulation

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Hit Collection

- ✓ For each generated hits, when **energy deposit of hit at corresponding bar detector is larger than detector threshold**, it is considered as **'real hit'**.
- Time condition?

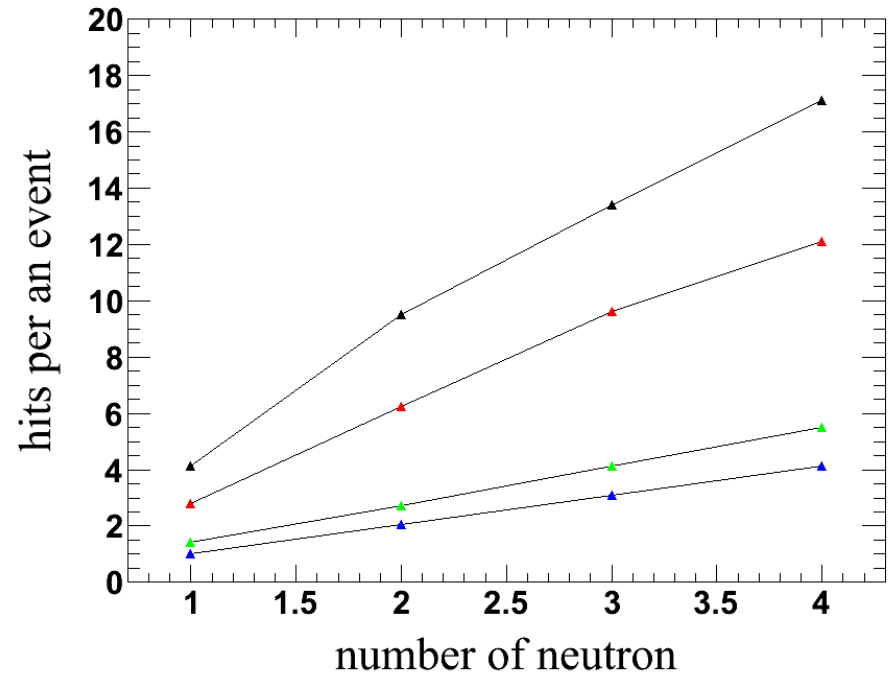
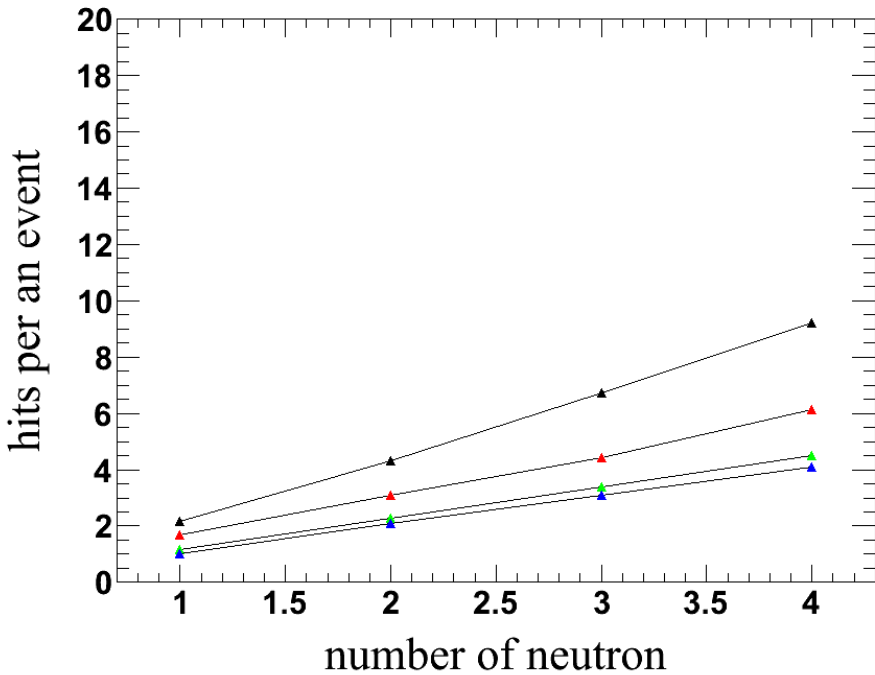
Hits per Event

- Real Hits per event (%)
= $\{(\text{the number of total real hits}) / (\text{the number of events which has at least one real hit})\} \times 100$

Black : 3 MeV
Red : 5 MeV
Green : 7 MeV
Blue : 10 MeV

100 MeV

300 MeV



Problems of Beta Condition

- 현재의 beta algorithm으로는 2개 이상의 neutron들이 남기는 hit들이 섞여 있을 때, 각각의 hit이 어떤 event에서 생성된 hit인지를 제대로 구분해내지 못함.
- 이외에도 algorithm에 다소 허술한 점이 많아, 우선적으로 수정이 필요.

Next Step

- Hit time distribution
- Veto efficiency
- Modifying Beta algorithm