



Clustering for SciGlass

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New adjacencyMatrix specification using algebraic expressions based on cellID the SciGlass clustering working in EICrecon and Juggler.

<https://github.com/eic/EICrecon/pull/460>

A simple 2D case:

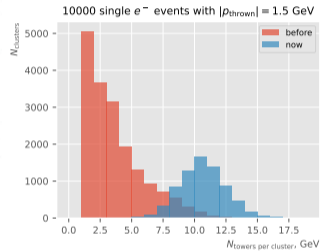
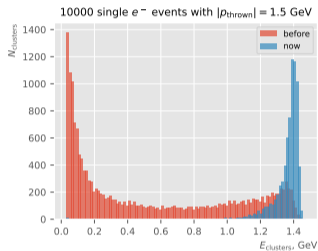
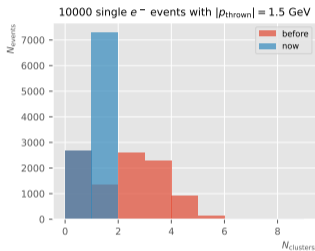
```
(abs(row_1 - row_2) + abs(column_1 - column_2)) == 1
```

A more sophisticated case with wrap around (SciGlass):

```
(  
  abs(tower_1 - tower_2) +  
  (abs((sector_1 - sector_2) * 5 + row_1 - row_2) == 1) +  
  (abs((sector_1 - sector_2) * 5 + row_1 - row_2) == (24 * 5 - 1))  
) == 1
```

where magic numbers: 24 - number of sectors, 5 - number of towers per sector

Island Clustering for SciGlass



Single particle production using geometry description 23.01.0 has this fix.

Future items

- » Energy thresholds
 - Pedestals (digitization might be less of an issue for ePIC?)
 - Physics/beam backgrounds
- » Enable cluster splitting
- » Track association?
- » Truth association?