TimeSPOT WP4:
Stato delle attività a Milano

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Software implementation

- **Software implementation status**
  - Construction of the “True” stubs for the tracks (needed for efficiency calculation) → **DONE**
  - Identification of stubs in all the couples of adjacent planes, using the cuts from “standard reconstruction” → **DONE**
  - “Tracking Layer” implementation, populated with Engines and 2D histogram for visualization → **DONE**
  - Engine implementation, mimicking the actual hardware implementation → **DONE**
    - Receives the stubs
    - Evaluates a binary weight in the central cell and lateral cells
    - Identify a track if the central cell is over threshold and represents a local maximum with respect to the lateral cell
  - Quantitative results available in a short time

  - Training of the Stub Makers (evaluation of coarse cuts for hardware implementation) → **TO DO**
  - Training of the Tracking Layer for uniform distribution of the Engines within the Layer → **TO DO**

Software implementation

- Example of stubs identified on “True Tracks”
  - Very similar to the full tracks, as expected
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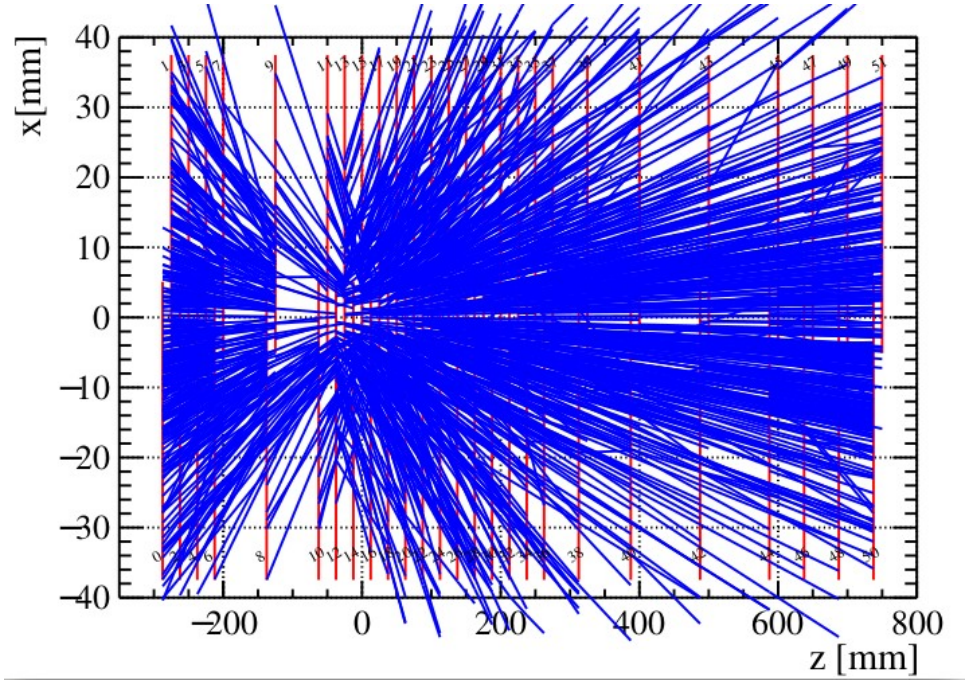

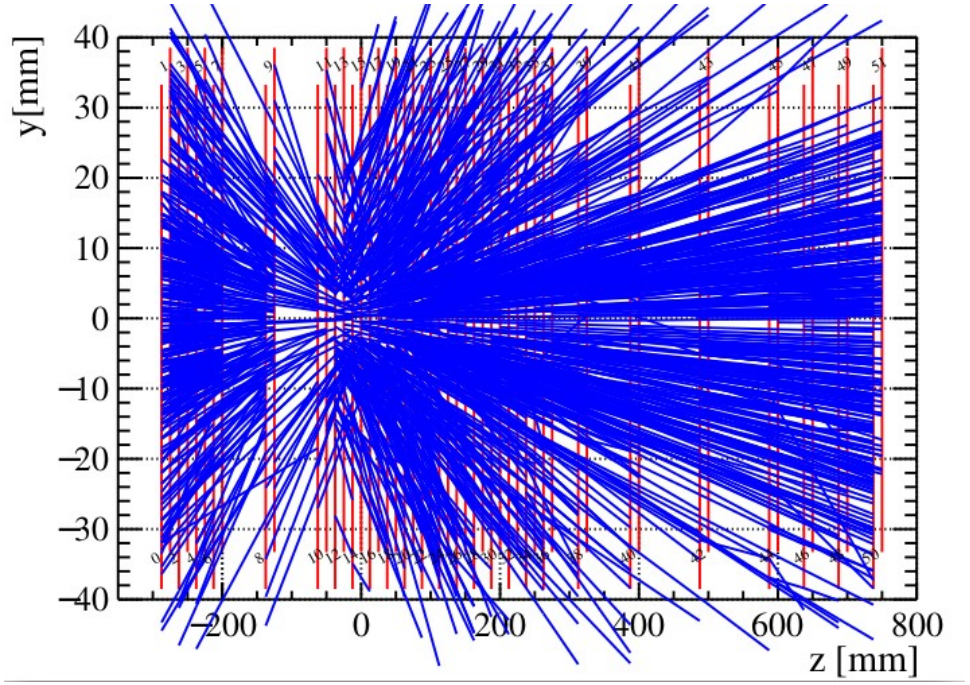

Software implementation

- Example of the populated tracking layer
  - Each bin represents the central cell of each Engine
  - Engines distributed in the normalized space of (r+,phi+)
  - The tracking layer is positioned at z = 400 m
  - After the tracking layer training (based on the quantiles of r+, phi+ distribution), the layer will be uniformly populated for better use of the resources