



# VXD TrackFinder Development at KIT

Status report - tracking meeting

Jonas Wagner | 16th December 2016

INSTITUTE FÜR EXPERIMENTELLE KERNPHYSIK - IEKP



www.kit.edu

# **Outline/Gliederung**





Multiple Tracks

Same Sample Training and Evaluation





Same as for DESY face2face meeting

Common parameters		
Pdglds		±13
nTracks		<u>10</u>
momentum	GeV	0.1 - 4
heta	0	0 - 360
$\varphi$	0	17 - 150



- 200 000 events
- seed 1234

# **Training Issues**



Not all SVD cluster can be converted due to inconclusive relations

### Example

- RecoTrack contains a single cluster
- Single custer has relations to multiple SpacePoints
- ⇒ Which SpacePoint is the correct one?
- $\Rightarrow$  How to treat this case?

# **Training Issues**



Not all SVD cluster can be converted due to inconclusive relations

#### Example

- RecoTrack contains a single cluster
- Single custer has relations to multiple SpacePoints
- ⇒ Which SpacePoint is the correct one?
- $\Rightarrow$  How to treat this case?

### **Current Options**

- Ignore this cluster
- Use a single cluster SpacePoint collection
- Ignore this RecoTrack
- Additionally mark the RecoTrack as problematic (currently using the dirty flag)

# Sample C





### Differences

- Evaluation only on successfully converted RecoTracks
- Changed max  $p_t$  limit in SecMapConfig from 3.1 to 5

Multiple Tracks