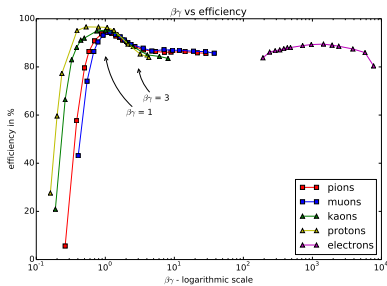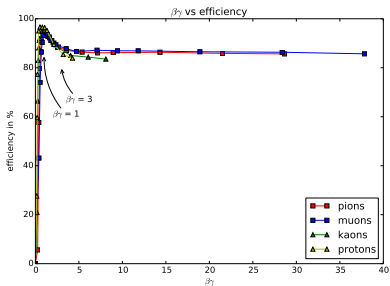# VXDTF Efficiency study - current status

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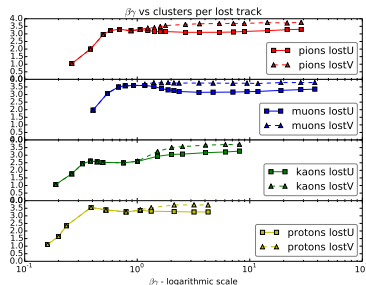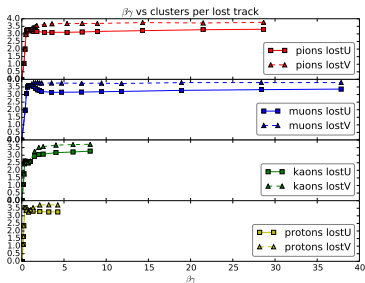March 6, 2015

betagamma vs efficiency

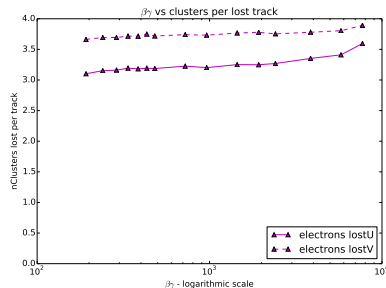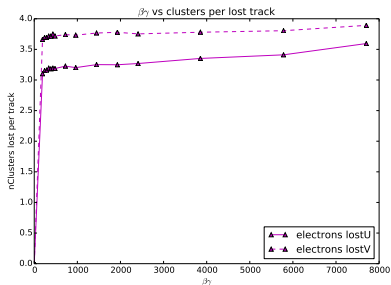full clusterizer - betagamma vs efficiency

betagamma vs clusters in lost tracks

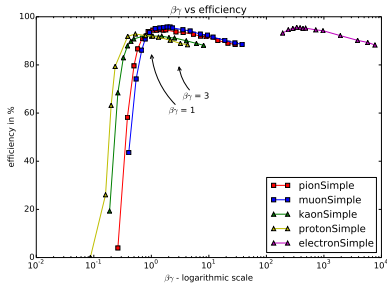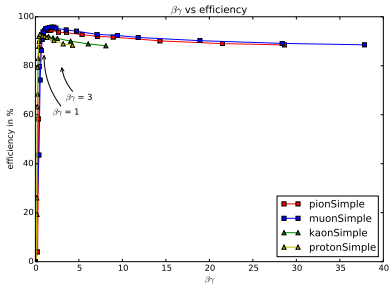full clusterizer - betagamma vs clusters in lost tracks

betagamma vs clusters in lost tracks - electrons

full clusterizer - betagamma vs clusters in lost tracks - electrons

betagamma vs efficiency

simple clusterizer - betagamma vs efficiency

betagamma vs clusters in lost tracks

simple clusterizer - betagamma vs clusters in lost tracks

betagamma vs clusters in lost tracks - electrons

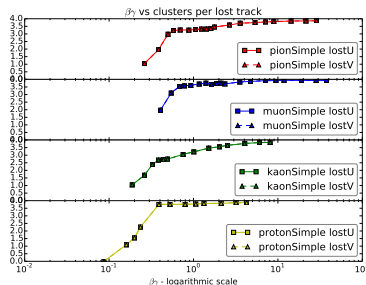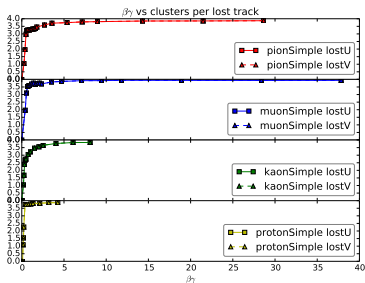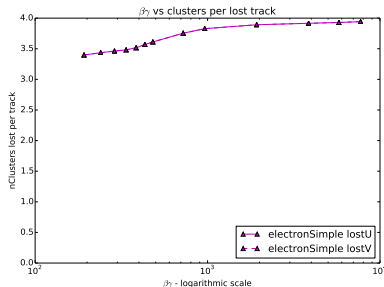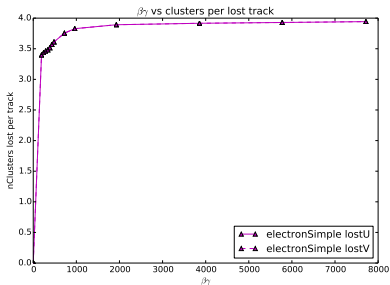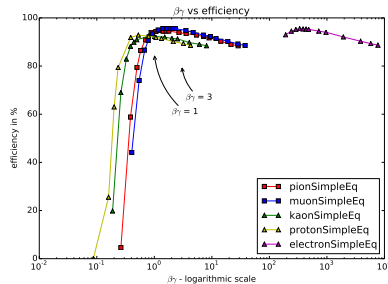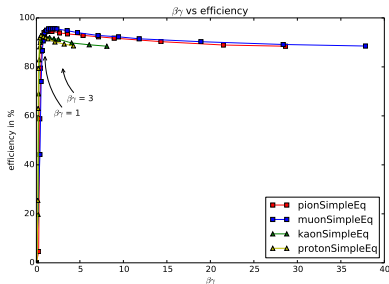simple clusterizer - betagamma vs clusters in lost tracks - electrons

full clusterizer
○○○

simple clusterizer
○○○

simple clusterizer Eq
●○○

theta and phi
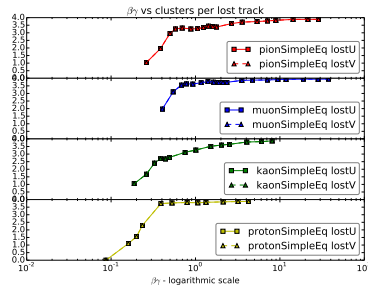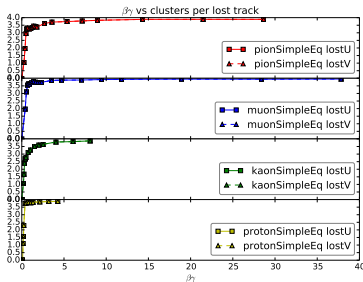○○○○○○

Conclusion
○

End
○○○

betagamma vs efficiency

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - betagamma vs efficiency
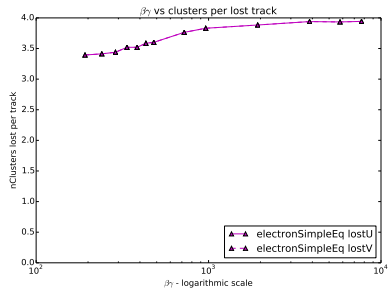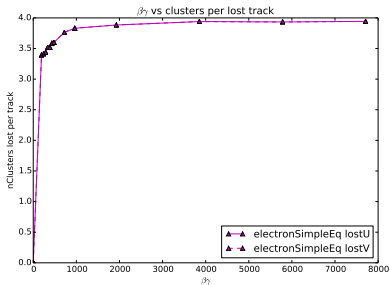
betagamma vs clusters in lost tracks

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - betagamma vs clusters in lost tracks
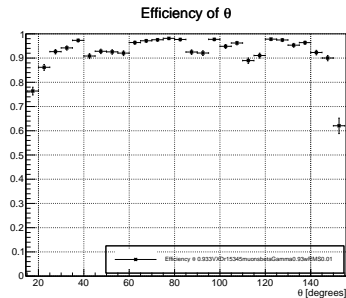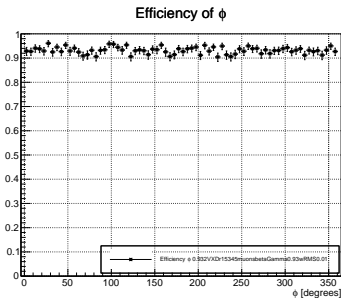
betagamma vs clusters in lost tracks - electrons

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - betagamma vs clusters in lost tracks - electrons
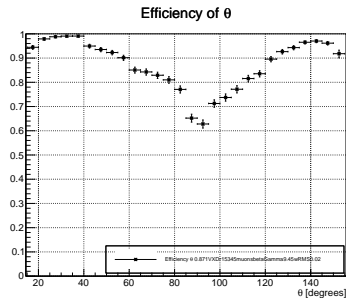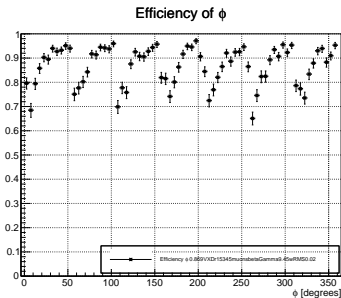
muons with p=100MeV full Clusterizer

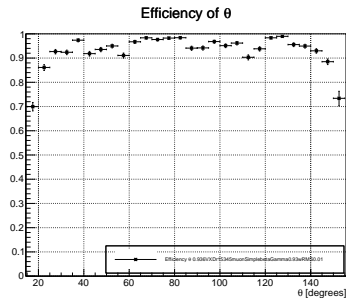simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - muons with p=100MeV full Clusterizer

muons with p=1000MeV full Clusterizer

Efficiency of φ

Efficiency of θ

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - muons with p=1000MeV full Clusterizer

muons with p=100MeV simple Clusterizer

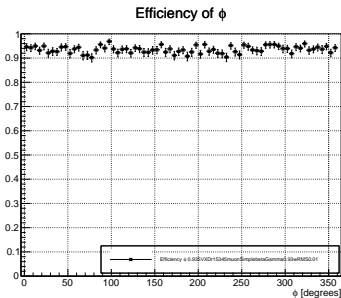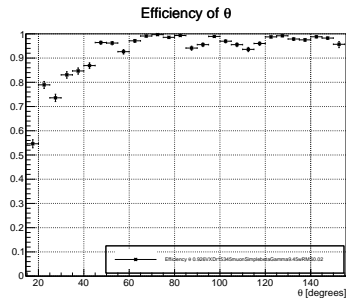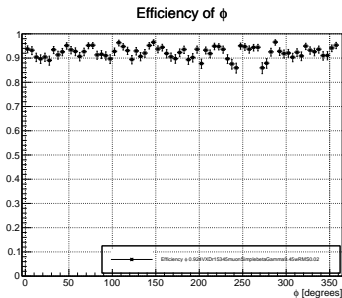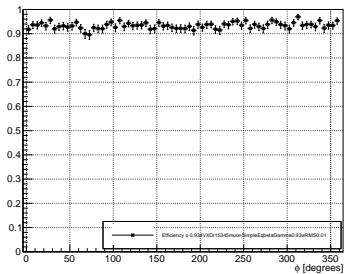simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - muons with p=100MeV simple Clusterizer
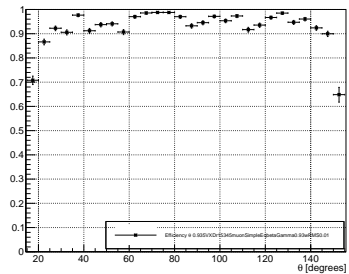
muons with p=1000MeV simple Clusterizer

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - muons with p=1000MeV simple Clusterizer

muons with p=100MeV simple Clusterizer with equal eDepThreshold

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - muons with p=100MeV simple Clusterizer with equal eDepThreshold

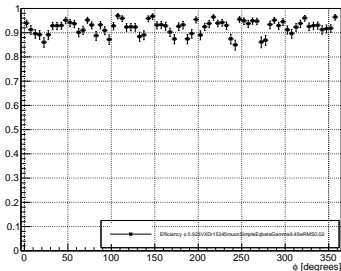# muons with p=1000MeV simple Clusterizer with equal eDepThreshold
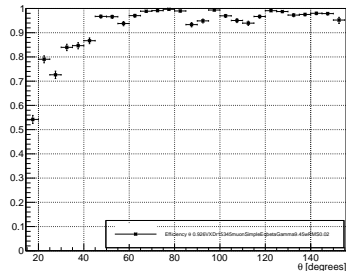

Efficiency of φ

Efficiency of θ

simple clusterizer Equal Threshold for all clusters (PXD, SVDu, SVDv) - muons with p=1000MeV simple Clusterizer with equal eDepThreshold
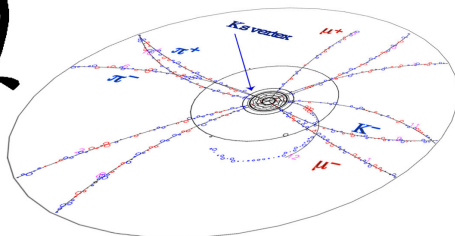
Conclusions and ToDo

Conclusions

- There is a clear correlation between $\beta\gamma$ and the $\phi/\theta 90°$-effect
- There is a clear correlation between $\beta\gamma$ and the diverging number of U- and VClusters per lost track
- Unclear whether gradually falling efficiency is connected to simple clusterizer

What could still be done

- runs without energy loss
- manually looking at each single lost track and find other clues
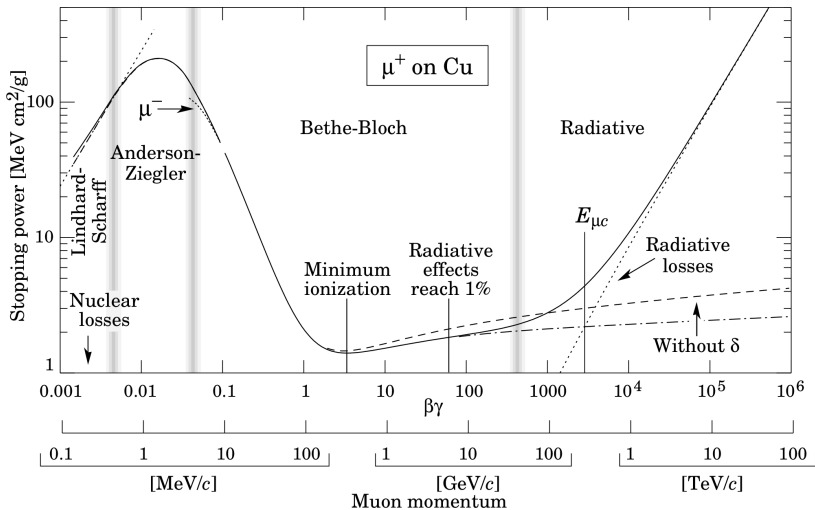
that's all, folks!
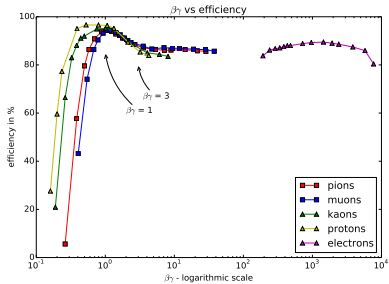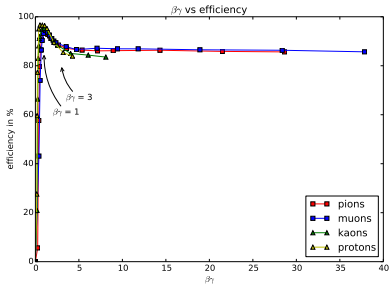

Any suggestions, ideas or requests?
Jakob.Lettenbichler@oeaw.ac.at

betheBloch

betagamma vs efficiency

full clusterizer - betagamma vs efficiency