



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

Plans of the Heidelberg Group

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Upgrade 2 Tracking Mini-Workshop, 15.12.2020

Heidelberg Tracking Efforts

Run 1+2:

- Maintenance of the Tracking Efficiency Tools
Renata Kopečna (PhD), Flavio Archilli (PostDoc)
- Maintenance of the Forward Tracking

RTA:

- Development of the Tracking Efficiency Strategy for Run 3
Guilia Frau (PhD), Flavio Archilli, Peilian Li (PostDoc)
- Tracking Sequence and tracking algorithms, RTA shifter
Peilian Li
- Forward Tracking algorithm, RTA shifter
Andre Günther (PhD)
- Kalman Fitter
Jacob Kubat (PhD starting in January)
- Study of tracking output, lifetime bias/resolution, wrong PV association ..
Paula Herrero Gason (master student), Peilian Li

Motivation for Upgrade Ib/II

- German groups like to contribute to the development of the **infrastructure of the hybrid modules** (Mighty Tracker + SciFi) and to the development and test of the **HVCMOS Chip**
- We like to bring in our expertise on tracking/fitting/RTA software to help to design/validate the new tracking detector.
- Initial project: Study of momentum resolution of long tracks by smearing MC truth information and fitting the tracks (Jacub Kubat + support from Peilian and Andre)
- We are open, to help where help is needed.