3D Visualization
KIT - IAP

André Schmidt

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In General

- using Blender, a 3D graphic software with a python implementation
- 3D Model of the particle tracks
- create Animations (moving camera, falling particles)

Goals:

- Python script that works for typical air showers
- Interactive visualization with the VR headset

Reduction of tracks

- ▶ high computation time if too many tracks
- ▶ reduce tracks in the center, that you cannot see anyway
- ▶ compensate by increasing radius of the tracks, so that the particle density stays the same
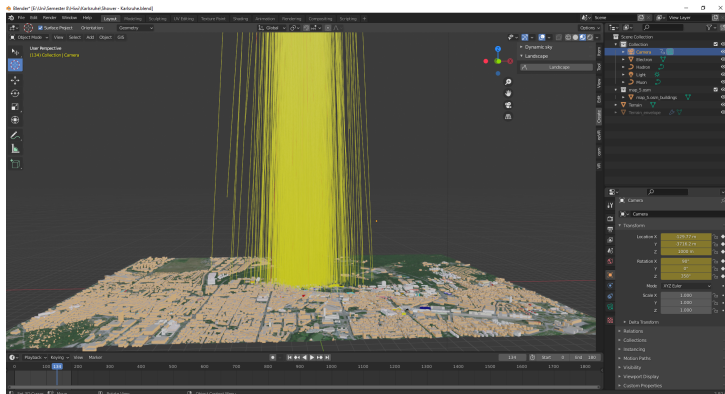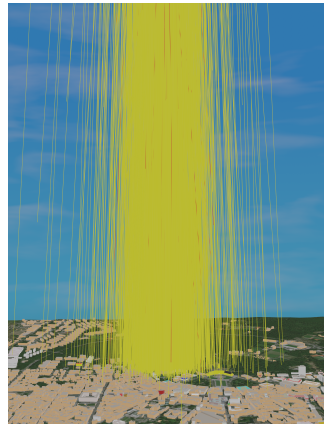
Example

fig.: Picture of Blender

fig.: Rendered picture

muons - yellow, hadrons - red

- Short Video
- VR Headset, full 3D immersion

Other

- earth magnetic field model in CORSIKA8
- support Katrin with school student supervision:
  Questions about studying, Mist chamber, CosMO-Scintillators