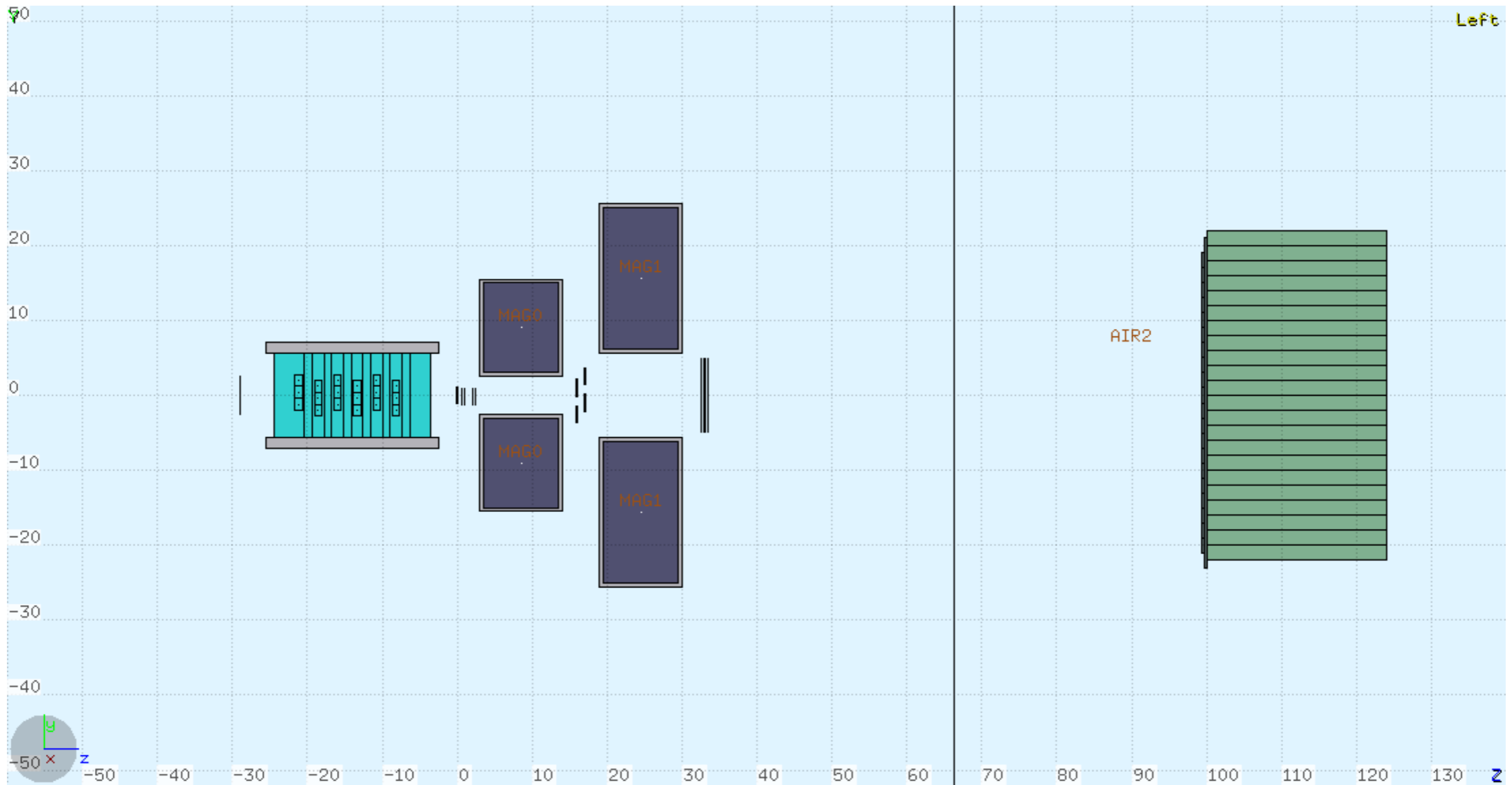


FLUKA simulation status in the newgeom branch

Serena

Software meeting 22/07/2017

FLUKA geo in newgeom branch



Present

- All the detectors, the target and the magnets are available in FLUKA simulations (MSD thanks to Riccardo)
- Detectors can be switched on and off in the FootGlobal.par config file
- Including the magnets in FootGlobal.par config file, also the magnetic field is activated: tests ongoing
- The energy deposits in the Mimosas28 are recorded only in the 14um thick epitaxial layers
- Passive layers in the IT still missing (but not “strongly” needed in the reconstruction). Final layout still to be defined. Should we put them in the simulations now?
- IT ntuple: got rid of imimo, iplume, ilay. Now we only have isens
- Study about electron energy cut (triggered by Marie, working with Pisa)

Future

- Passive elements in IT to be included
- Mag field test in progress
- Not all the rotations have been implemented (see next slide)
- Some work has still to be done about the materials implementation in FLUKA
- Real calo geo must be implemented
- New event production and reco tests

Rotations

| Detector | Whole detector | | | | Single Sensor | | | |
|----------|----------------|---|---|--|---------------|---|---|---|
| | X | Y | Z | | X | Y | Z | |
| ST | ✓ | ✓ | ✓ | | | | | |
| BM | ✓ | ✓ | ✓ | | | | | |
| TG | | | | | | | | |
| VT | | | | | ✓ | ✓ | ✓ | |
| IT | | | | | ✓ | ✓ | ✓ | |
| MSD | | | | | | | | ✓ |
| DI | | | | | | | | |
| TW | | | | | | | | ✓ |
| CA | ✓ | ✓ | ✓ | | | | | |