Plans

- Simulate complete pair background in the ILD-TPC with the current detector geometry
- Calculate field distortions resulting from this background and its ion backdrift
- Examine the occupancy of the TPC
- Determine the impact of field distortions on momentum resolution

Roadmap

1. Simulate pairs on generator level (Guinea-Pig) for 500 GeV and 1 TeV $\Rightarrow$ done
2. Full simulation of the pairs interactign with the ILD (Mokka)
   - ILCSoft Version v01-13-06 (released on last Friday, also used for the DBD)
   - Detectormodel: ILD_O3_v03

   $\Rightarrow$ current work
3. Calculation of the field distortions (our own package) Validation with Keisukes method, perhaps using this method completely $\Rightarrow$ current work
4. Complete simulation of tracks in a distorted field for a pixelized readout (MarlinTPC) $\Rightarrow$ to be done
5. Reconstruction of tracks in a ILD scale TPC with a pixelized readout (MarlinTPC) $\Rightarrow$ to be done
6. Analysis of the resulting data (MarlinTPC/Root) $\Rightarrow$ to be done