

# ER and NR simulation

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- The idea is to have NR and ER in the CYGNO gas;
- The geometry probably doesn't matter because digitization should be able to move within the image and also in z
- The direction of the recoils would be nice could be random on 4-pi.
- For NR we need He and F. The energies required in electron equivalent are:
  - 0.1, 0.25, 0.5, 0.75, 1, 5, 10, 20, 30, 60 keV;
- Those are the ones for electrons. For NR, taking into account QF:
- He: 0.32, 0.7, 1.23, 1.7, 2.13, 7.5, 13.3, 24.2, 34.8, 65.8 keV
- F: 0.56, 1.2, 2.2, 3, 3.8, 13.4, 23, 39.6, 54.7, 95.7 keV
- We have to understand if GEANT is able to deal with QF
- 3000 events per sample