

CYGNO simulations update

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13/01/25

Simulation open tasks

- CYGNO-04 simulations:
 - copper shielding, acrylic box, copper cathode → completed
 - next volumes to simulate → field cage
 - caveat: for many materials (e.g FC) we only have upper limits on activities, ICP-MS measurements needed
 - external gamma simulations (spectrum acquired with NaI in hall F)
- Calibration simulations:
 - preliminary simulation presented by Zahoor al last simulation meeting
 - more realistic simulation needed (including geometry of the calibration window in copper shielding and acrylic)
- Digitization:
 - parameters for saturation have been tuned → good agreement with ^{55}Fe data, preliminary comparison with alpha seems promising
 - needed validation with other datasets (radon, 59 keV of ^{241}Am)
- AmBe data/MC comparison (Geant4+digi)
 - Previous simulations by Flaminia could be resumed to clarify some data/MC discrepancy