UGent x WG4

- **Personpower**:
  - Kirill Skovpen (staff), Didar Dobur (faculty), Kevin Mota (postdoc), PhD student (hiring!)
- **Relevant experience**:
  - **GEANT4**: simulation of low-energy neutron interactions in SND experiment; general simulation studies in CMS experiment (hadrons, tracking)
  - **Construction**: assembly of iRPC and GEM detectors for the CMS detector HL-LHC upgrade
  - **Computing**: responsible for Monte Carlo production in CMS (10B ev/year); workflow submission and monitoring; main developer of the CMS iRPC Detector Control System
  - **CPU/GPU**: track reconstruction in CMS experiment
  - Basic **deployment** tools: Docker, GitHub workflows, etc.

(1) Simulation studies (**4.4.X**, **4.6.1**):
  - Detector response for new and eco-gas mixtures
  - Alternative gas mixtures for thermal and fast neutron identification

(2) Software improvement (**4.1.1**, **4.1.2**):
  - Explore heterogeneous approach for Garfield++ routines that can be ported to GPU with Alpaka