

# The upgraded low-background germanium counting facility Gator for high-sensitivity $\gamma$ -ray spectrometry

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- High-purity germanium counting facility at LNGS
- Used for material radioassay in ultra-low background rare-event search experiments in astroparticle physics, e.g. XENONnT or GERDA
- Core: p-type coaxial HPGe detector with 2.2 kg sensitive mass and relative efficiency of 100.5%
- Passive shielding + upgraded detector enclosure and sample-handling infrastructure
- Background count rate of  $(82.0 \pm 0.7) \text{ kg}^{-1}\text{d}^{-1}$  in energy region 100 - 2700 keV
- For more info see also [arXiv:2204.12478](https://arxiv.org/abs/2204.12478)

**Poster 009**

