

## Study of the Operation Stability of a prototype for CYGNO experiment

CYGNO experiment is working at the construction of 1 cubic meter TPC, based on Optical Readout of Gas Electron Multipliers (GEMs) for Directional Dark Matter search. This kind of research demands for very long data-acquisition runs and thus for a high operation stability and reliability. A 7 litre sensitive volume prototype was kept for 10 days in the working conditions, while its response to natural radioactivity was continuously monitored together with all voltages and currents. Even if few times per day the currents drawn started to increase because of micro-discharges in GEM channels, these events could be safely recovered by an automated high voltage cycle. The detector operated at full efficiency for 10 days without showing any deterioration or instability, with a total dead time, due to recovery procedures, lesser than 6%.

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