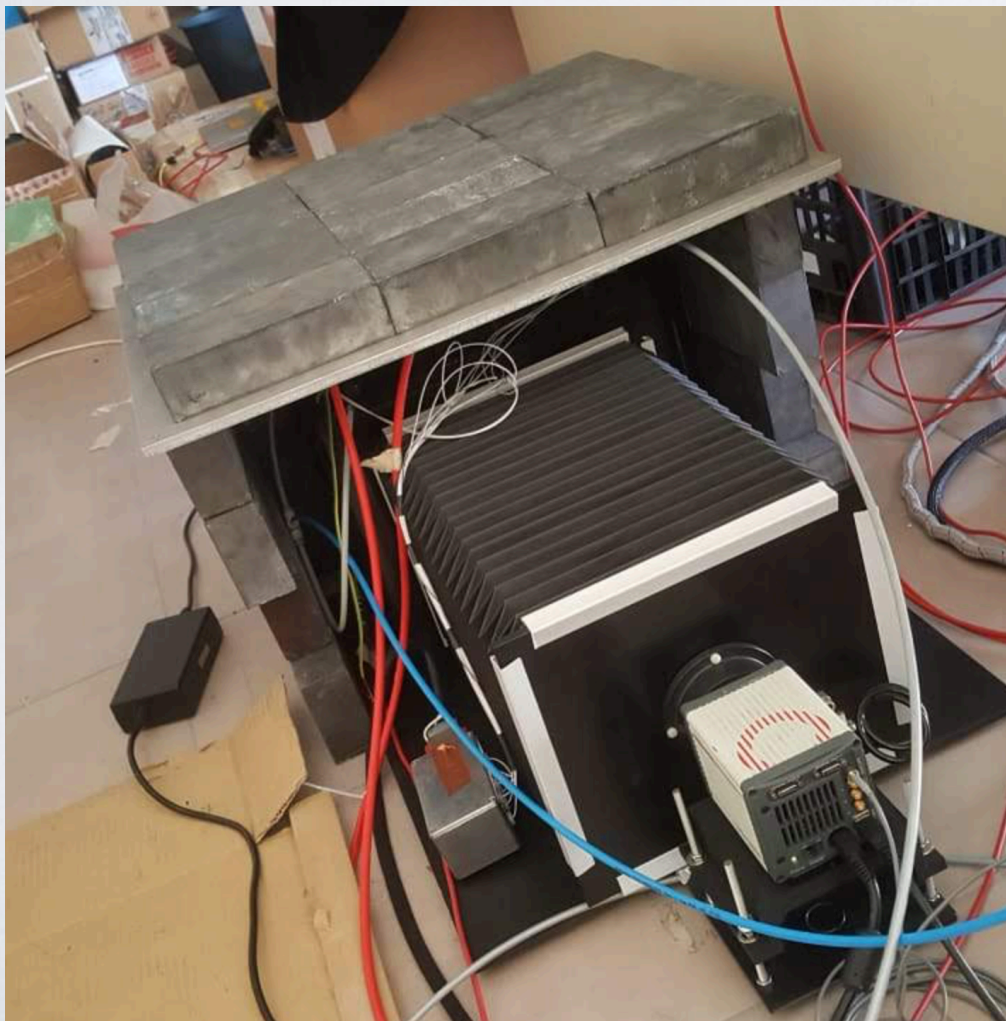
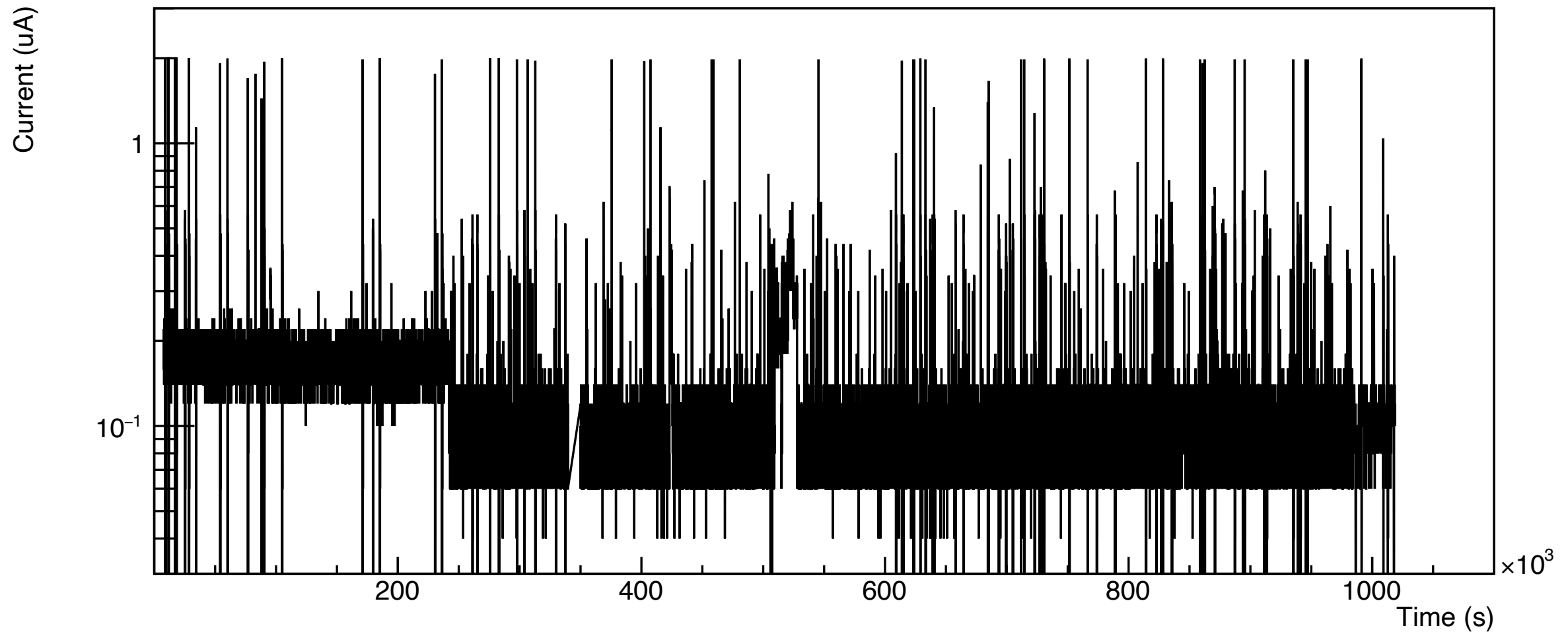


LEMON STABILITY

- LEMON is On since October 25: $V_{\text{GEM}} = 460$ (455 V in previous test) and $E_{\text{T}} = 2.5$ kV/cm;
- We are recording detector currents (to check high voltage stability), T, P and light (5 min each hour) to check response stability;
- After the first weekend, LEMON was shielded on 4 sides with 5 cm of Pb

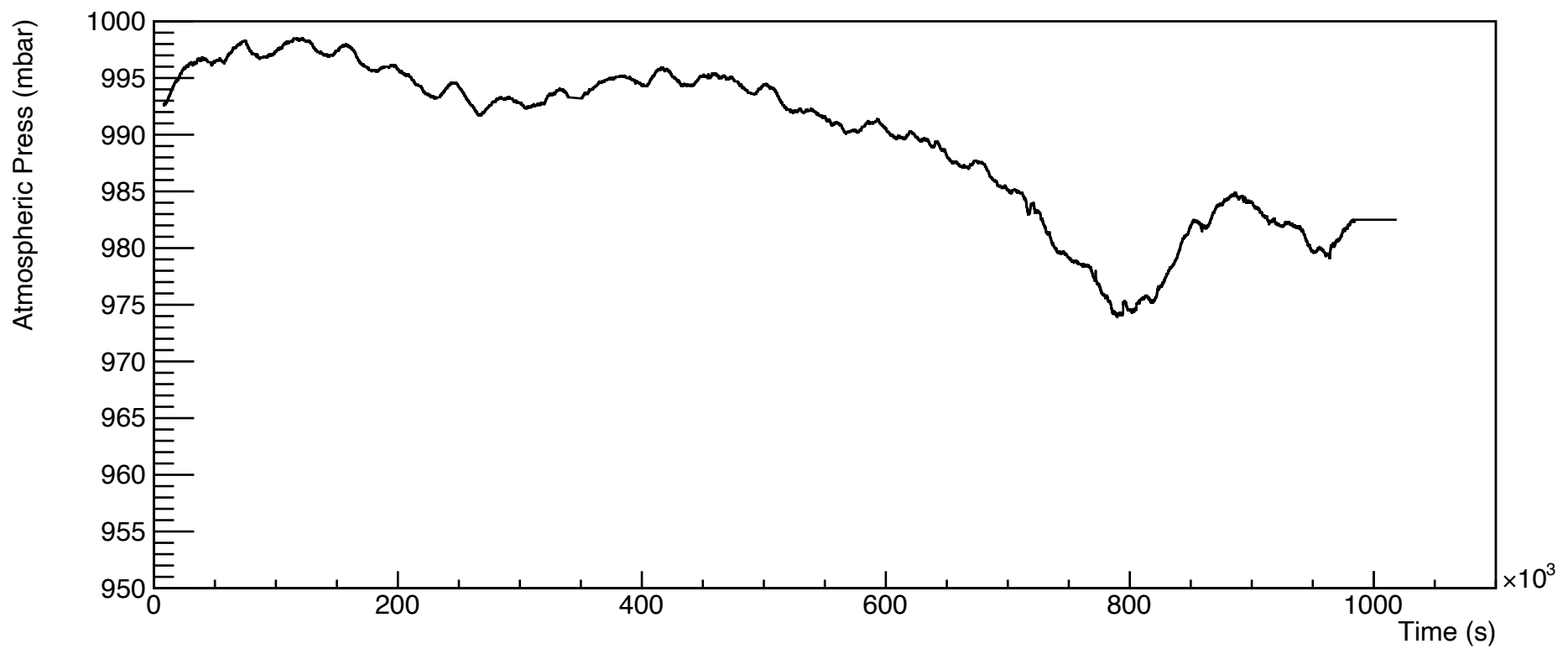
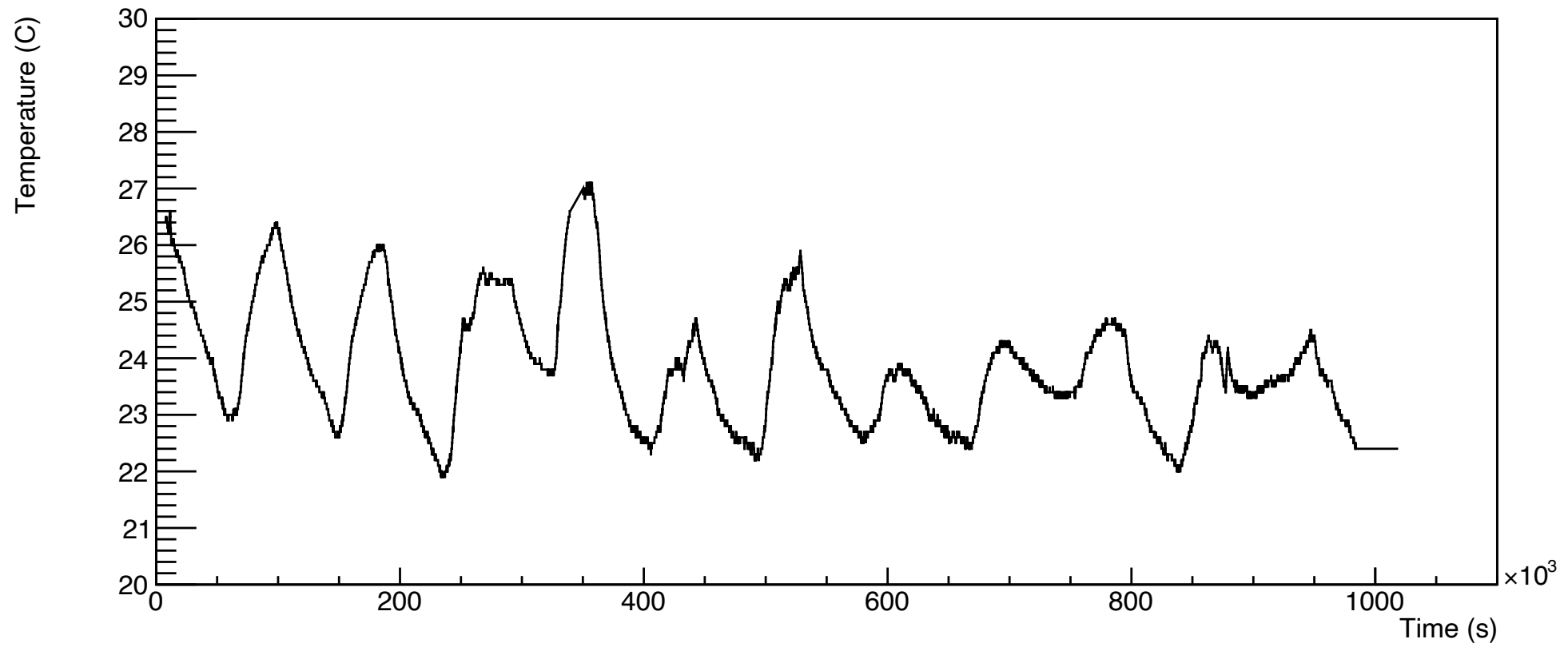


- After the shielding the current dropped by a factor 2;

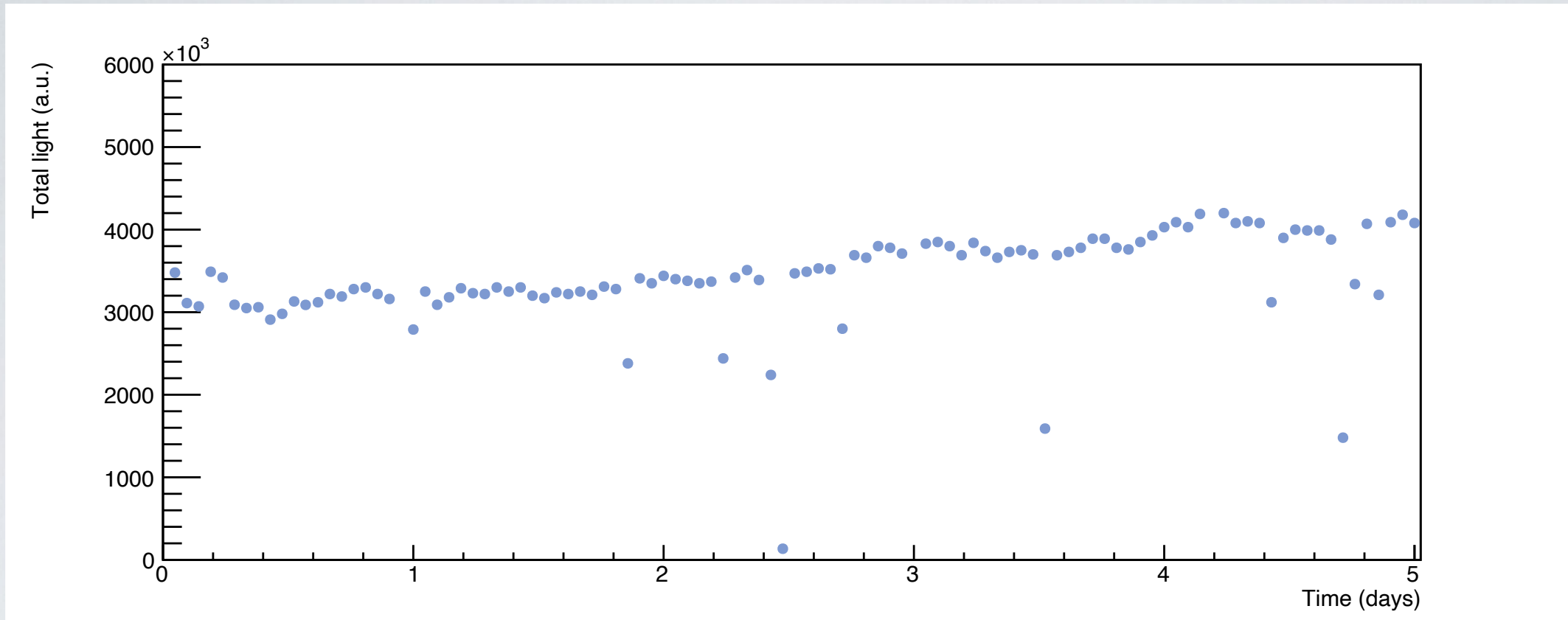


- Overall stability is fine even if around 50 discharges (4-5/day) twice the last test (higher V_{GEM} ?);
- Discharge seem increased after shielding:
 - Pb radioactivity?
 - Lower voltage drop [4V/0.1 uA]?

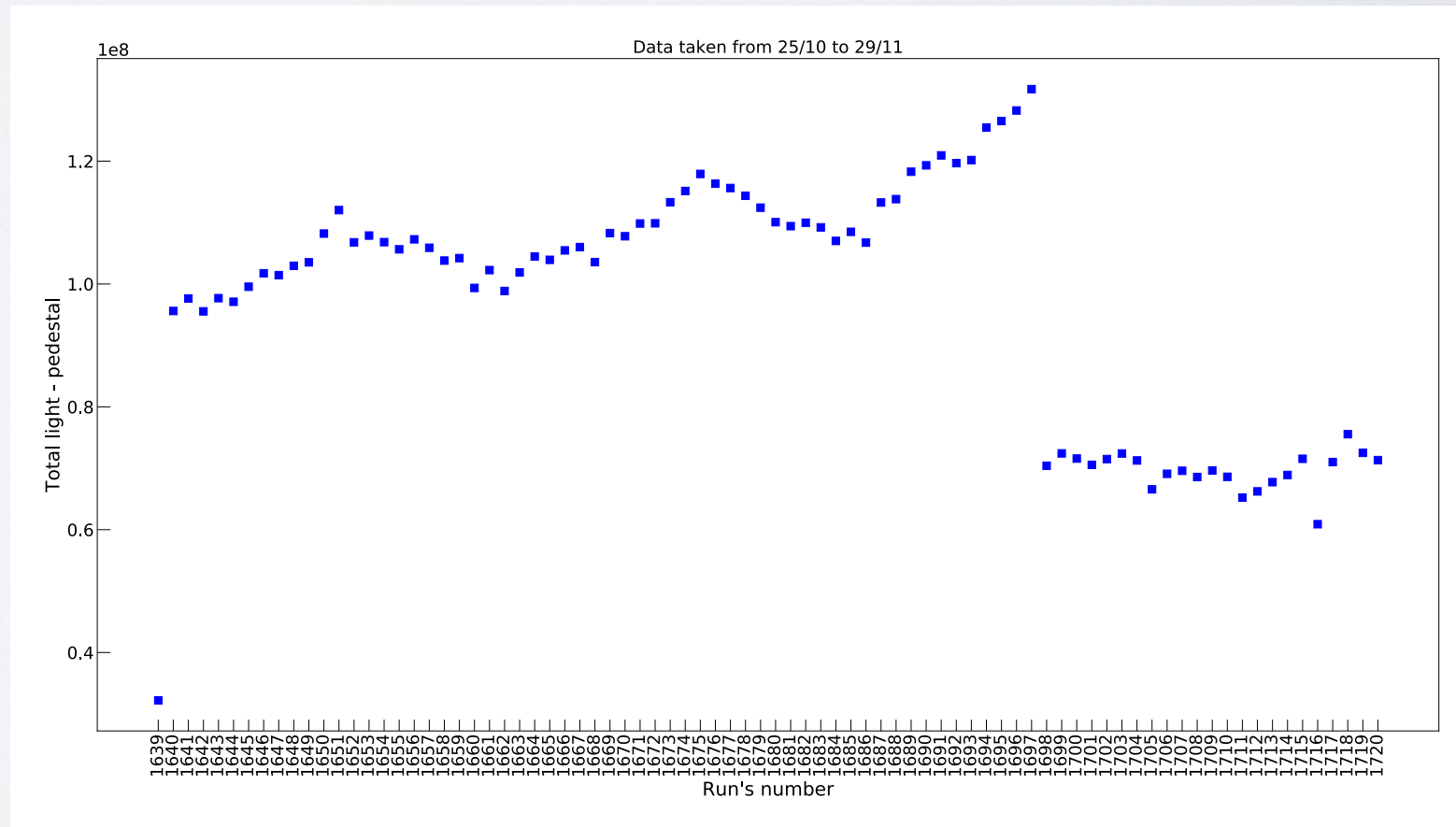
- Temperature and Pressure



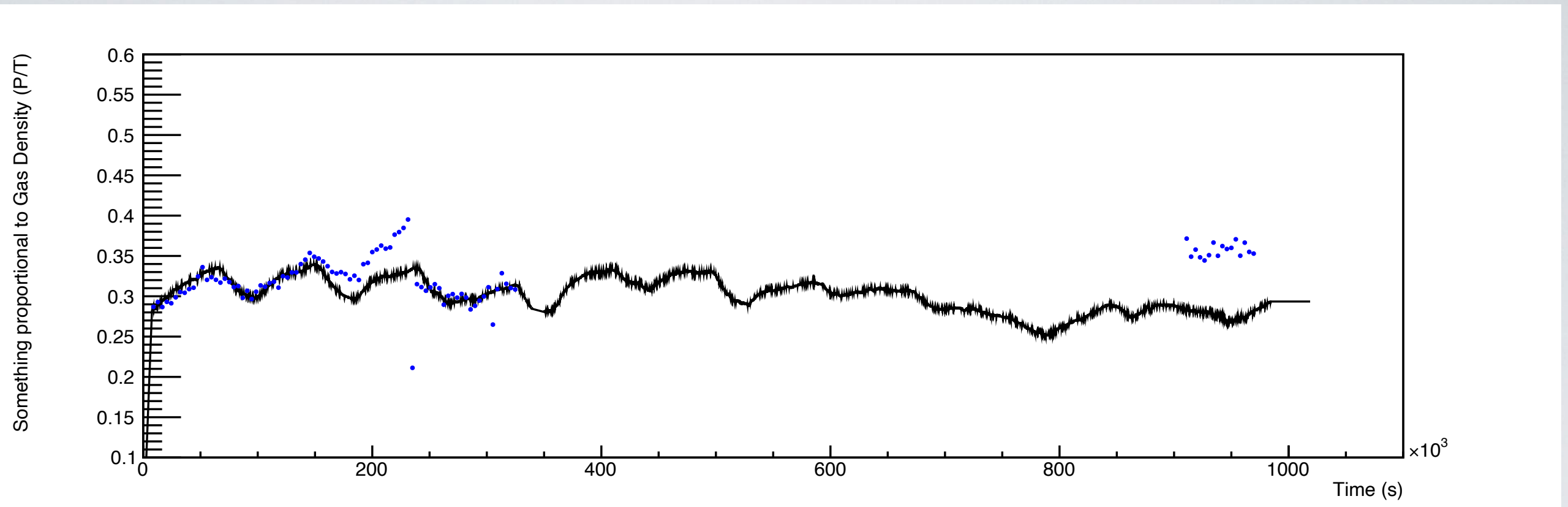
- Light increased by a 30% in previous test



- This time it was almost stable around T/P cycles and dropped by a factor almost 2 after the shielding.



- Correlation



- I tried to study the correlation of light with T/P (by correcting for the Pb effect);
- The light is **directly** proportional to P/T (gas density) while the gain goes in the opposite direction. Some density effect of the gas target?