Meeting CYGNO
News

LIME: status

- Because of the large gas leakages on the "booster", on Thur 25/05 we turned Off LIME and the gas system to make interventions and tests on it;

- Unfortunately, after the tests, another pump didn't restart;

- We then decided to stop this first part of Run3, make all needed interventions and maintenance on the gas system before restart the DAQ:

  - repair or substitute the booster to reduce as much as possible the leakages;

  - send back the defective pump for reparation;

  - test again the humidity filters to better understand their behaviour;

- This "pause" is expected to be at least about 1 month long;

LIME: status

- Before the stop, we were anyway able to collect 500 "standard" background runs;
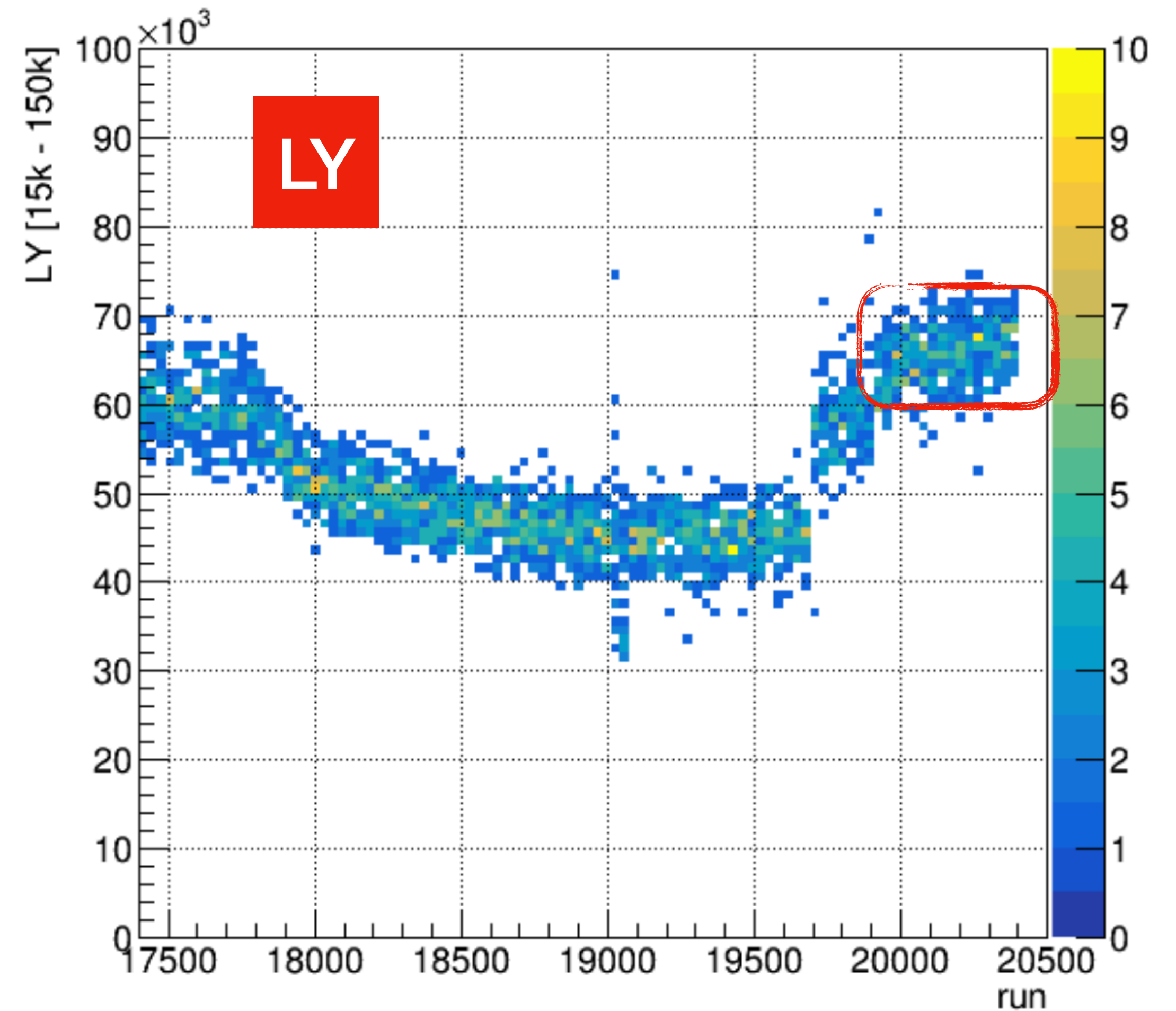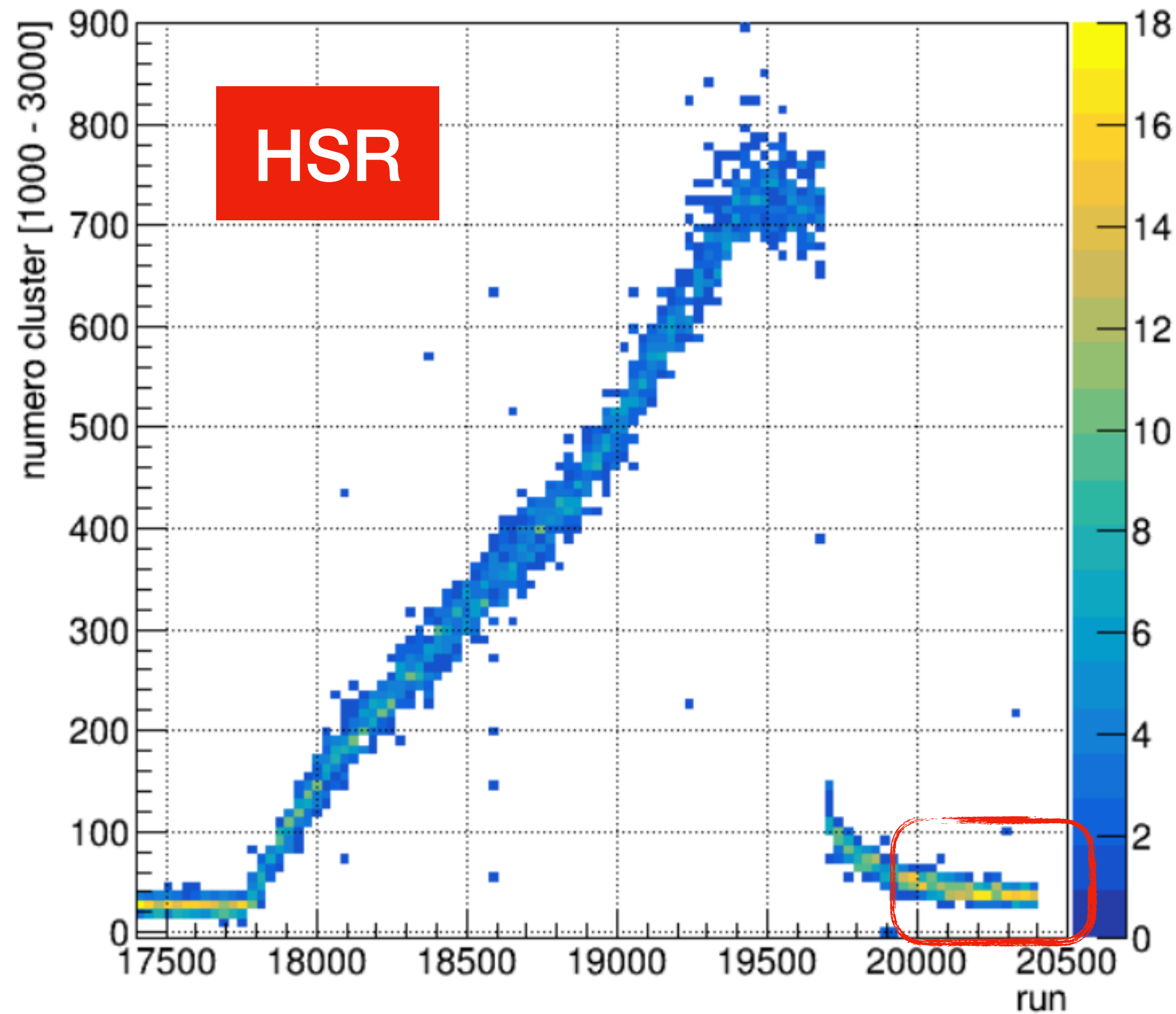
| 19909 | Standard | 2023-05-22 16:20:26 |
| 20415 | Standard | 2023-05-25 08:59:02 |

- A total of $2 \cdot 10^5$ pictures, equivalent to about $6 \cdot 10^4$ seconds and about $8 \cdot 10^4$ events

	Number of pictures	Event rate	Number of BKG events
RUN 1: No-shielding	$4 \cdot 10^5$	35 Hz	$4 \cdot 10^6$
RUN 2: 4 cm Cu shielding	$4.5 \cdot 10^5$	3.5 Hz	$5 \cdot 10^5$
RUN 3: 10 cm Cu shielding	$2 \cdot 10^5$	1.3 Hz	$8 \cdot 10^4$

LIME: status

According to a first quick look to data, hot spot rate (HSR) is expected to be low and light yield (LY) very high;

LIME: plans

- Even if Run3 statistics is "sub-optimal", we have a good sample to analyse;

- The study and the comparison of the Runs taken so far is a good exercise to develop and optimise algorithms and software tools;

- A the same time, we have 3 different configurations for the comparison with MC simulations;

- The Coimbra meeting will be a good opportunity for discussions and proposals on these items;

https://agenda.infn.it/event/36399/

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