



Polar@Etna

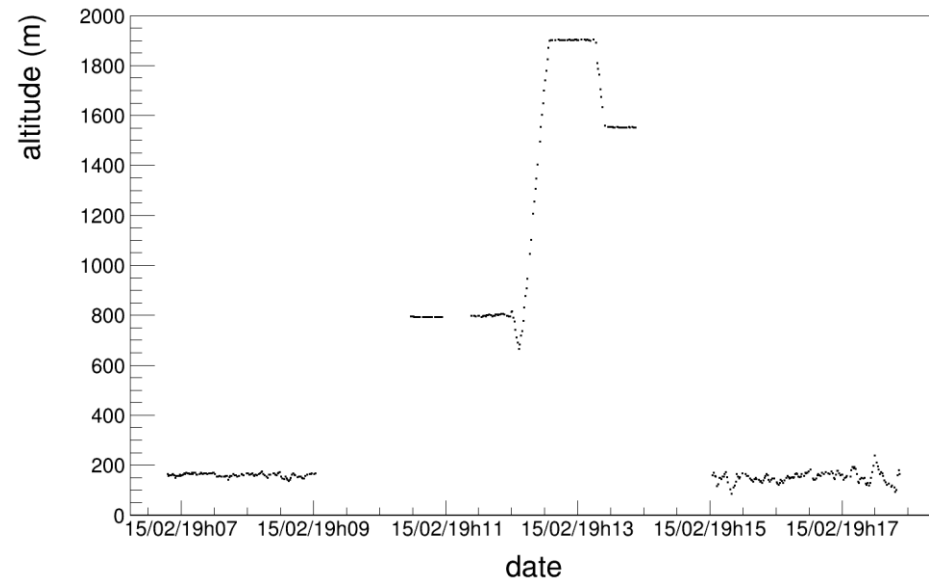
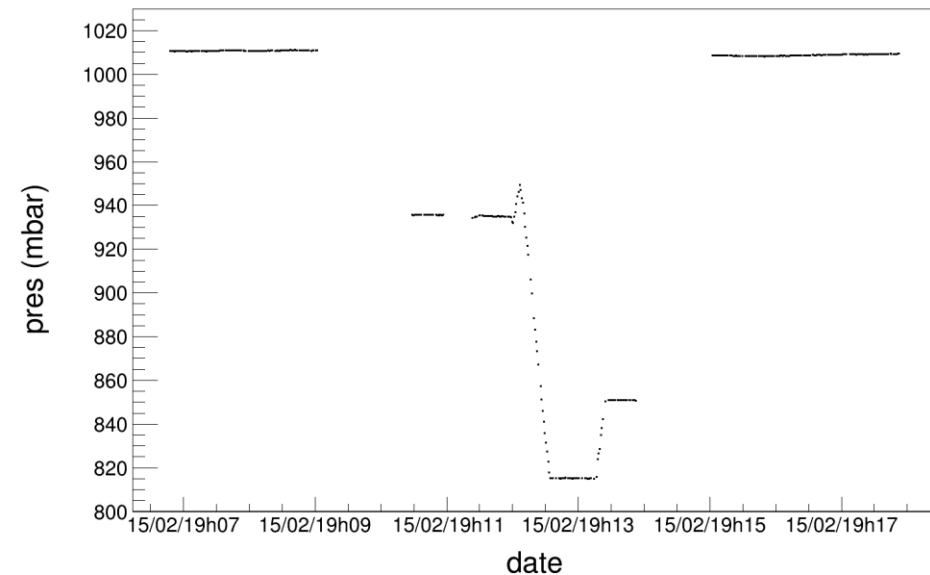
F. Noferini

Polar@Etna: dataset

15/02/2019

EEE timestamp start: 382.60E6

EEE timestamp start: 382.64E6



Clear correlation altitude vs pressure.

Can we disentangle the two effects on the rates?

Extrapolation of rates at sea level

So far we just applied pressure corrections
(assuming altitude effect was removed with that)

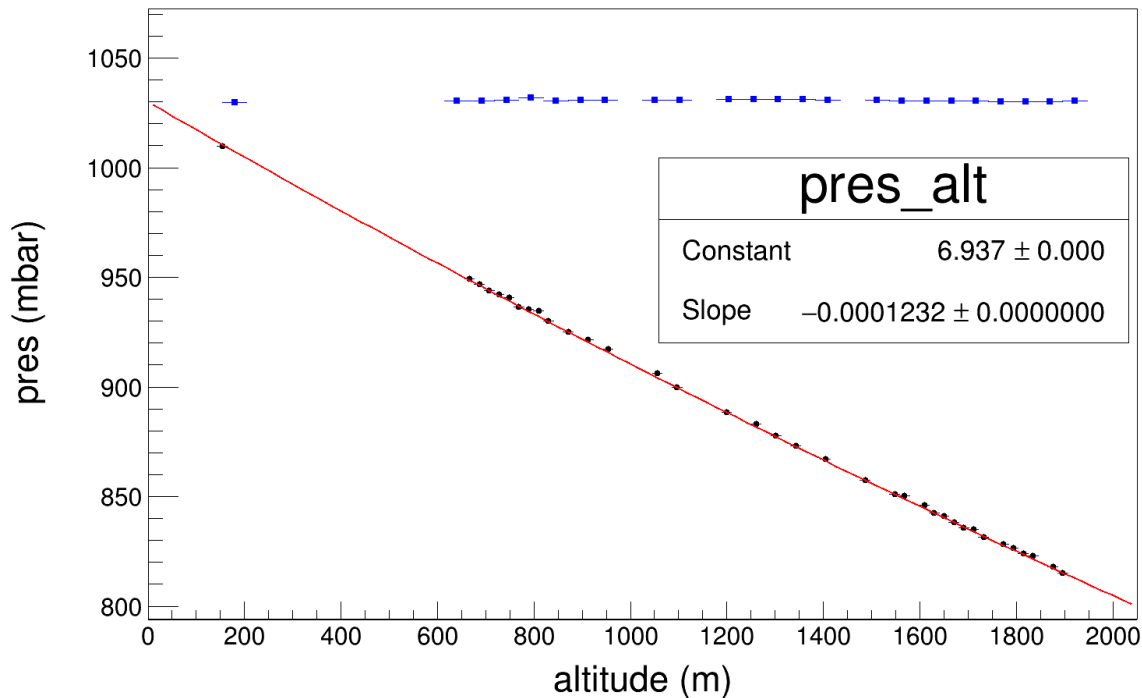
We tested an alternative method by computing:

- Rate vs altitude
- Extrapolation pressure at sea level



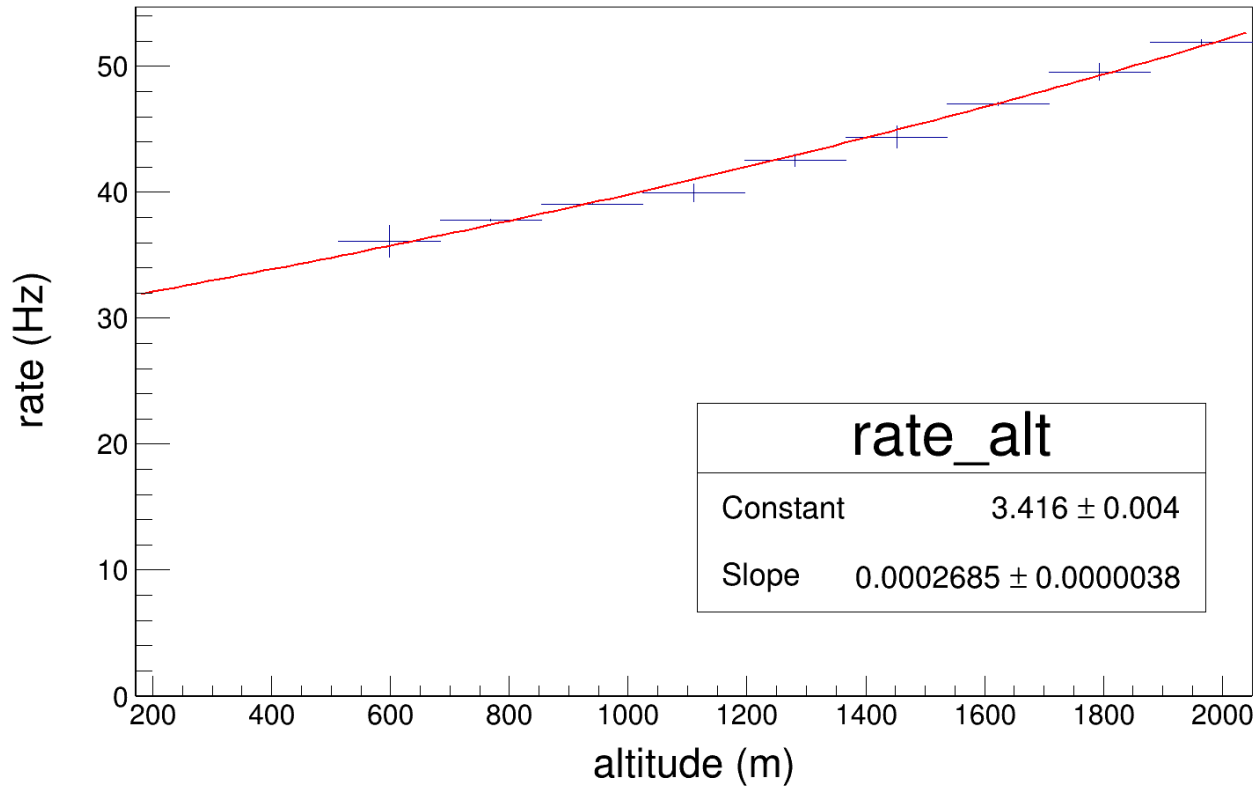
Correct for altitude and
then for pressure at sea level

Pressure at sea level



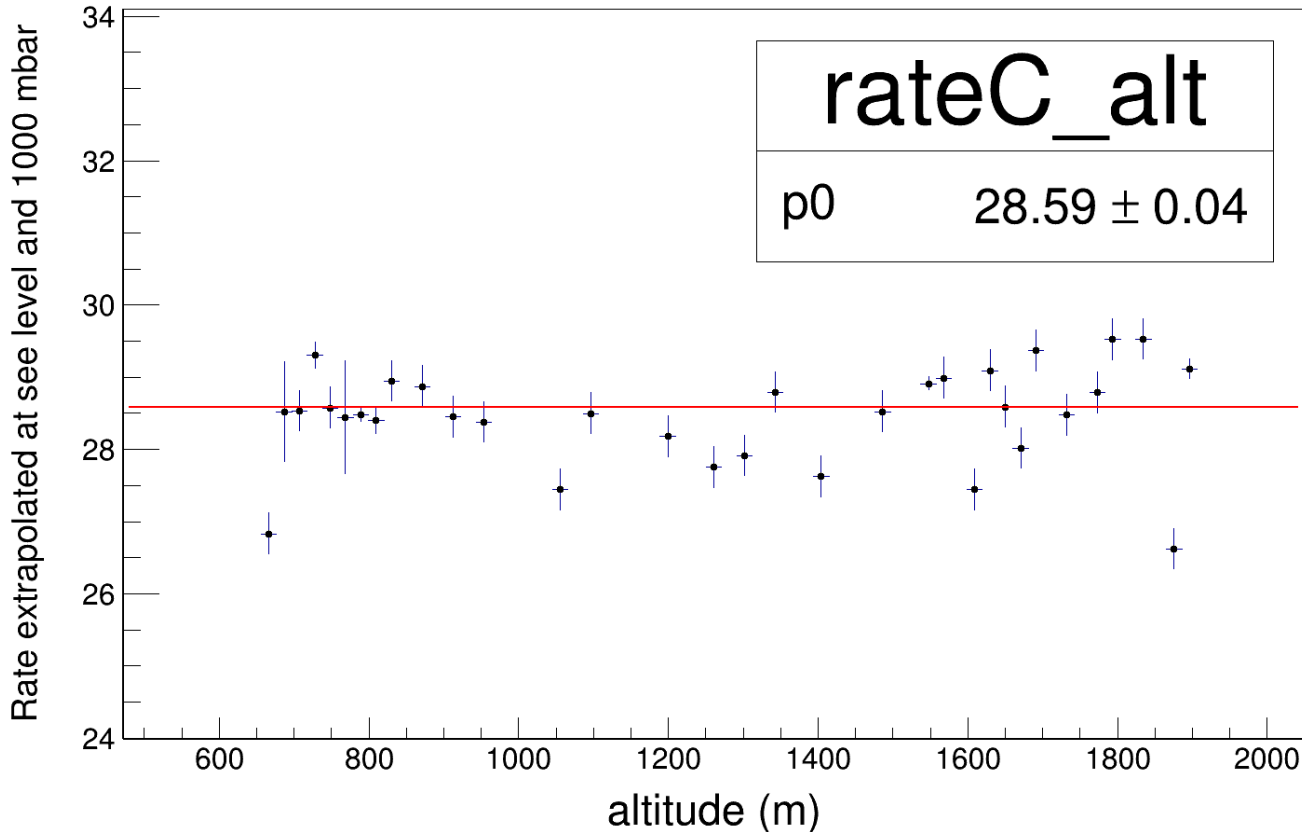
To extrapolate
pressure at sea level
pressure vs altitude
was fitted with
exponential law.

Rate vs latitude



Corrections for altitude effect were computed assuming no big variation on the pressure at sea level during that day.

Correction vs altitude



Corrections applied using the slope derived in the rate_altitude plot.

→ Pressure correction then applied on the pressure at sea level (extrapolated)

Comparison of two methods

Rate1 = corrected for pressure neglecting altitude

Rate2 = corrected for altitude and then for pressure at the sea level

