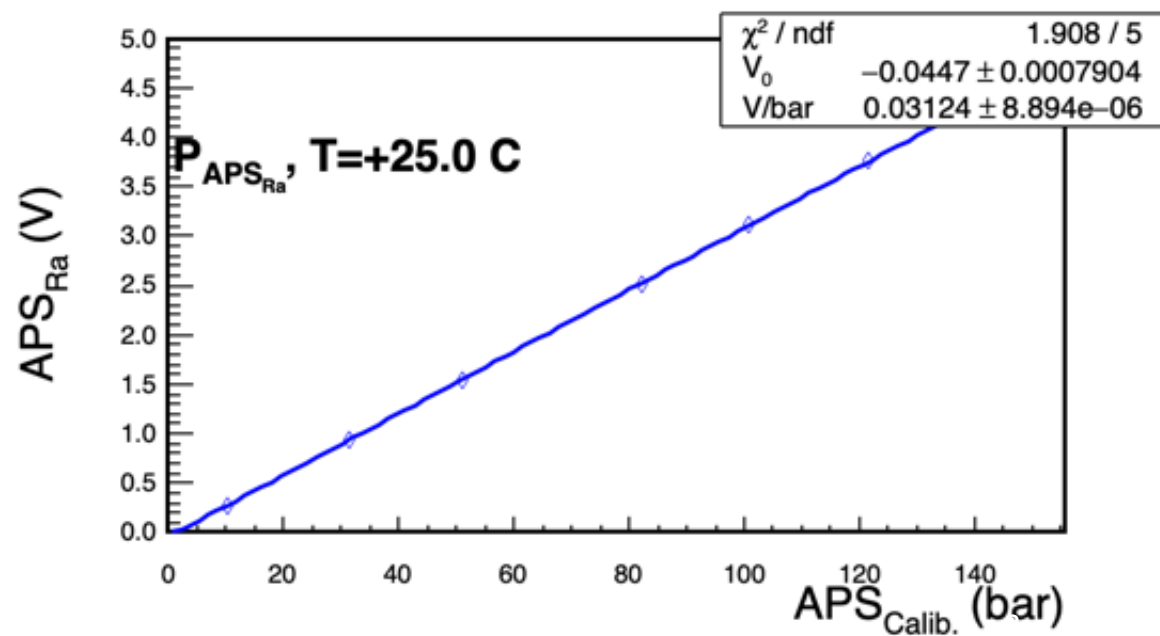
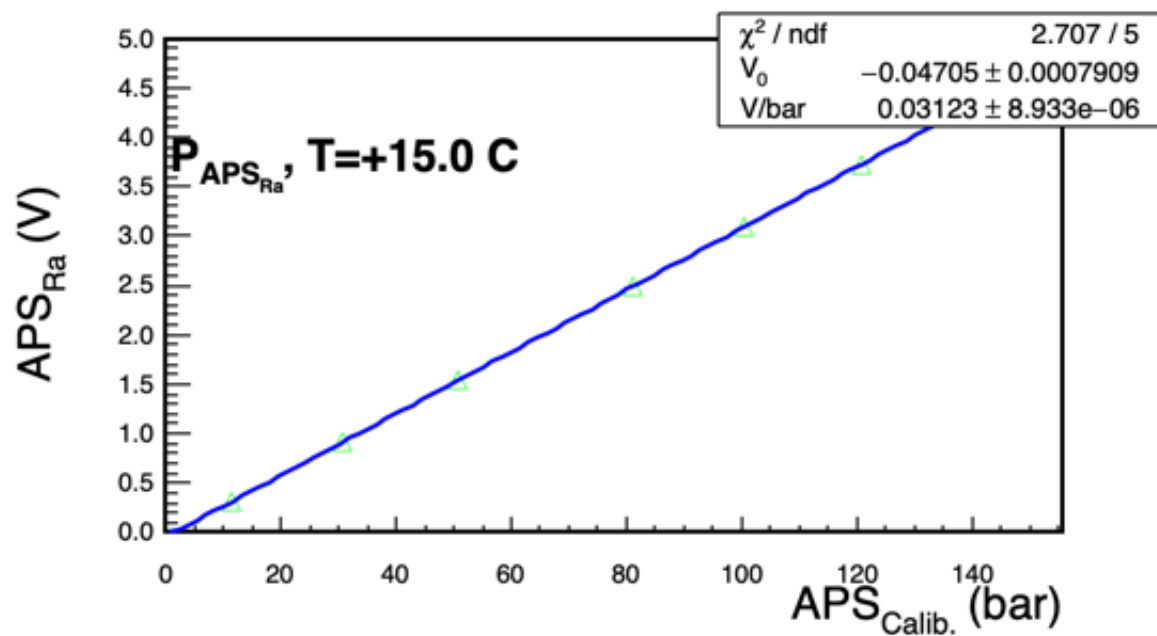
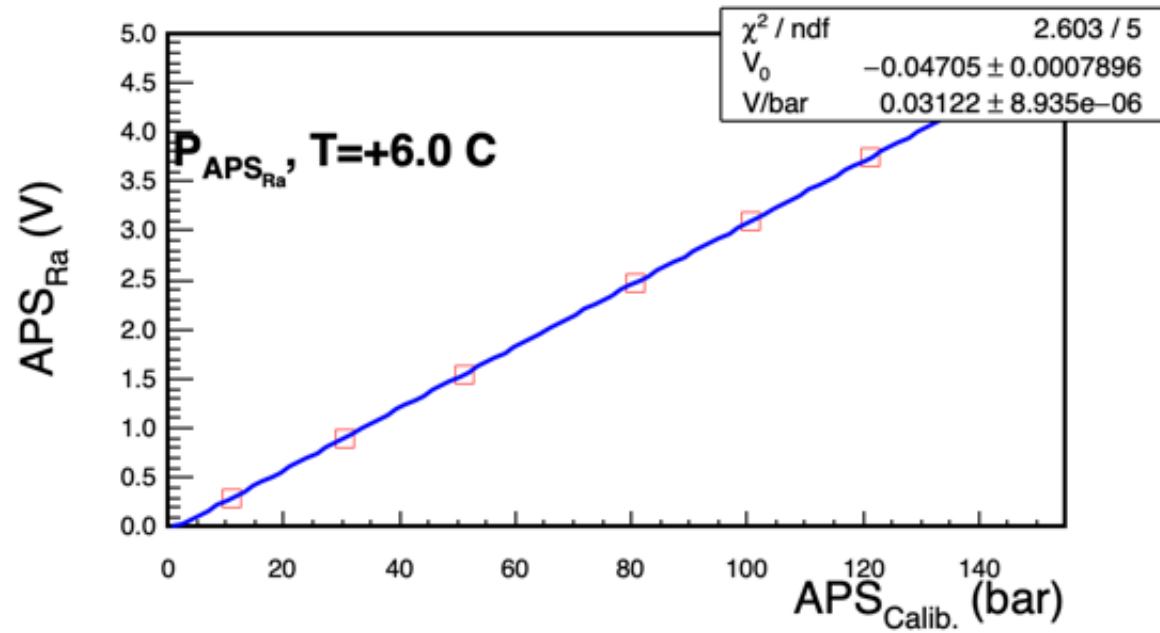
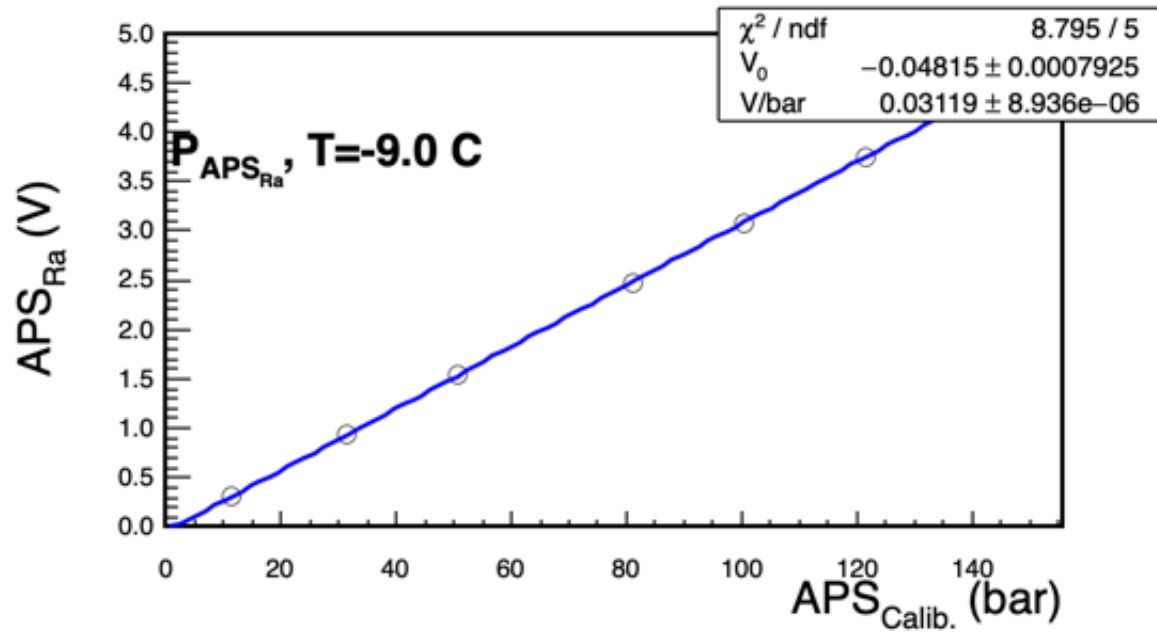
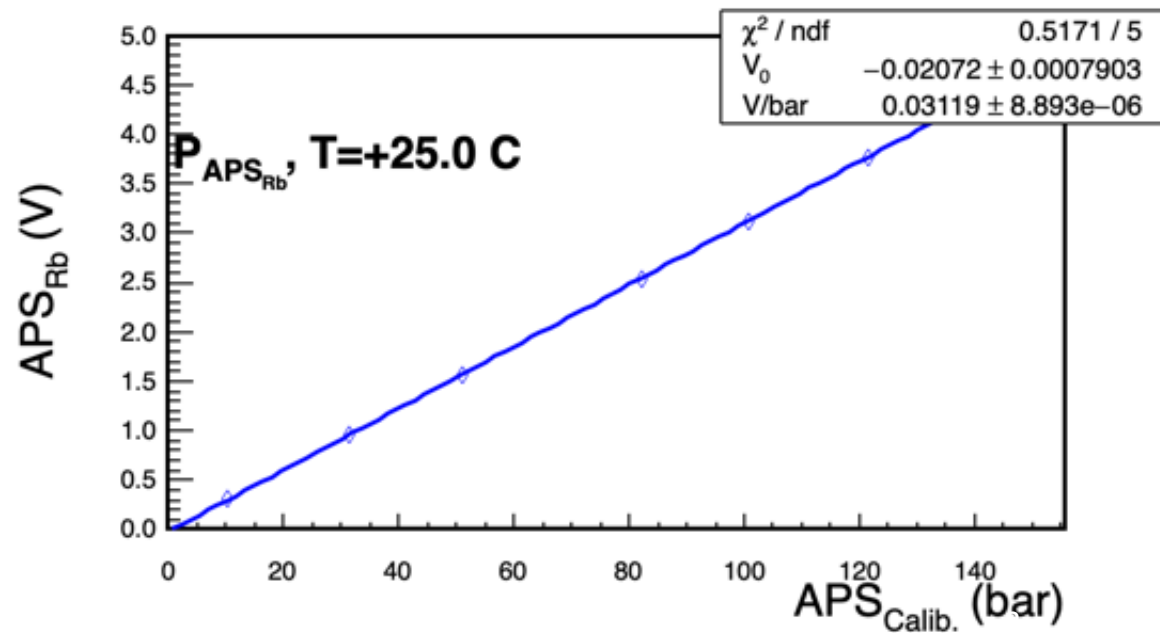
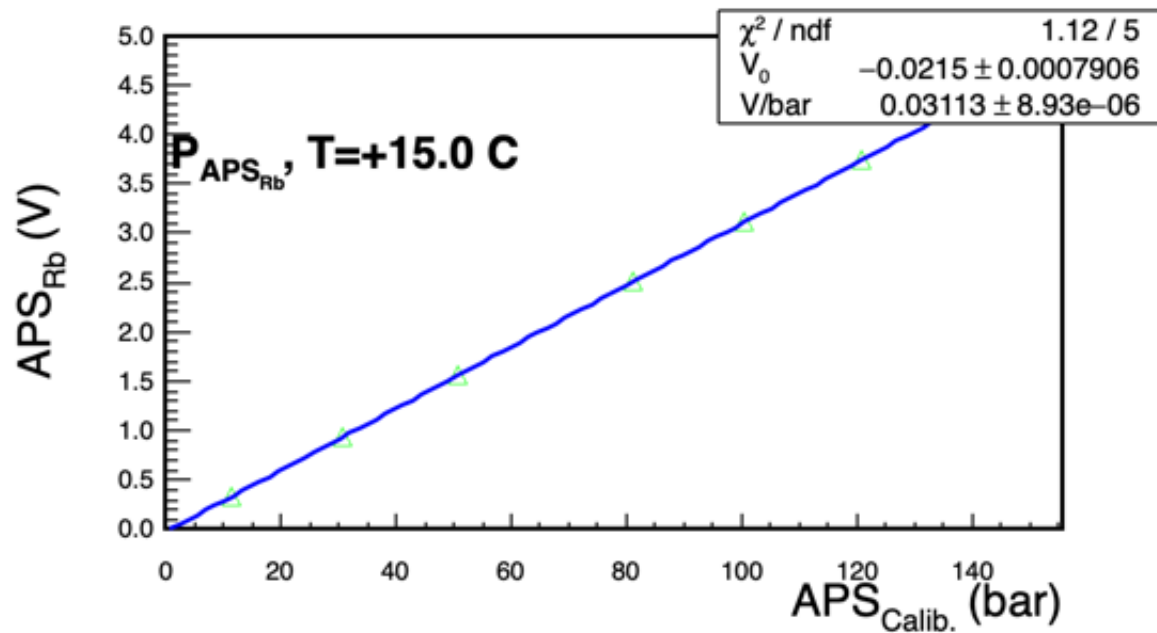
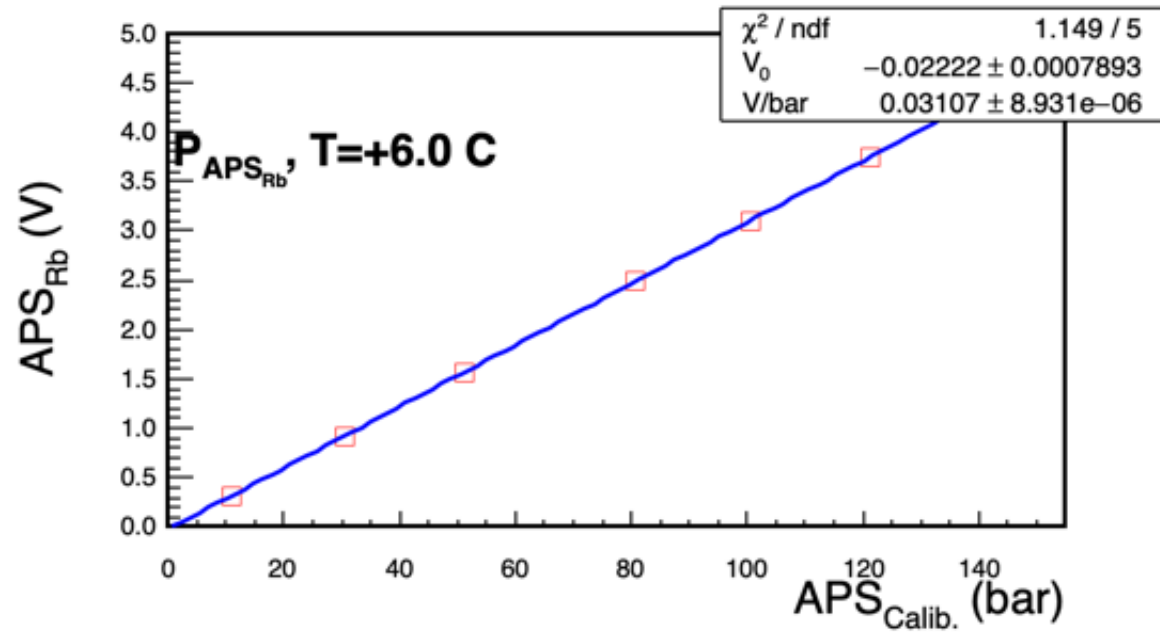
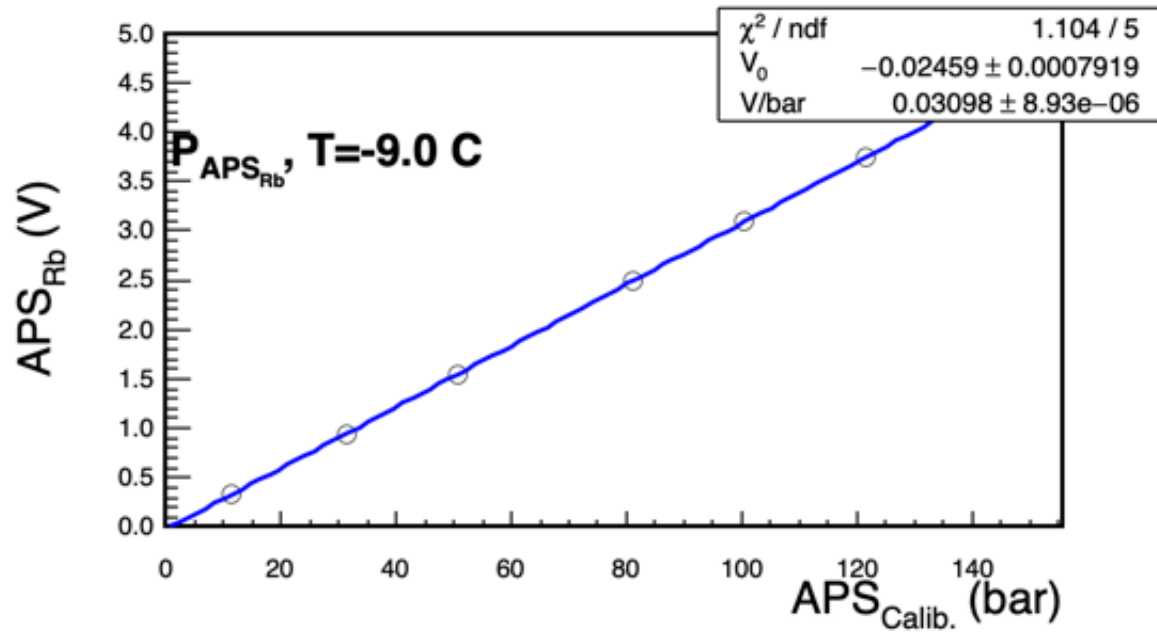


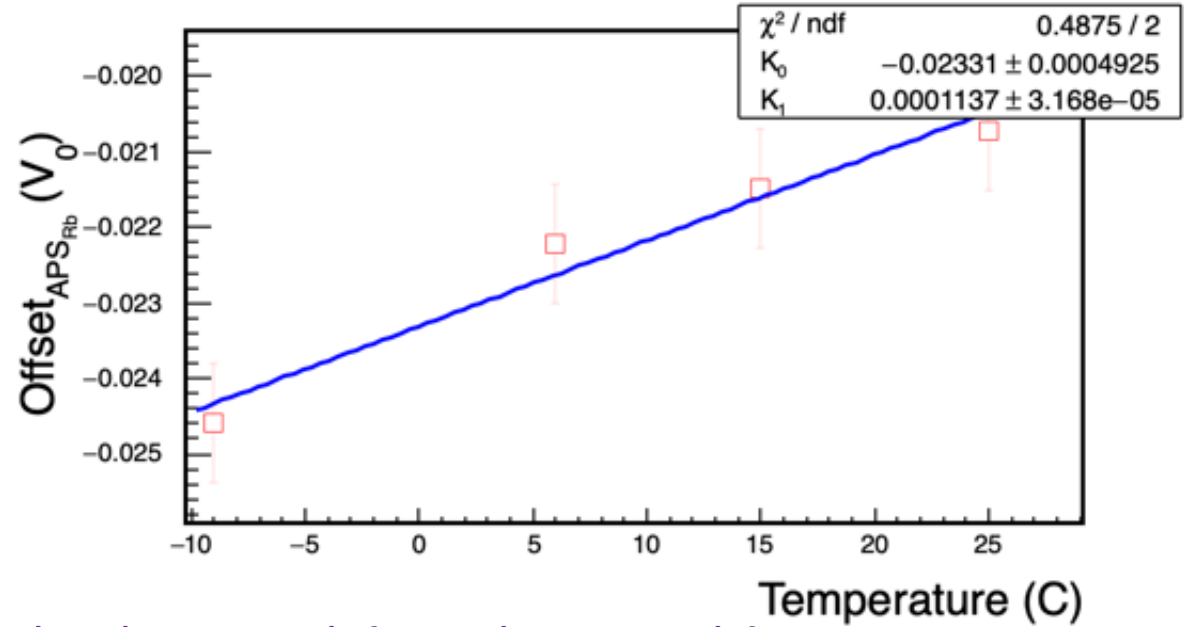
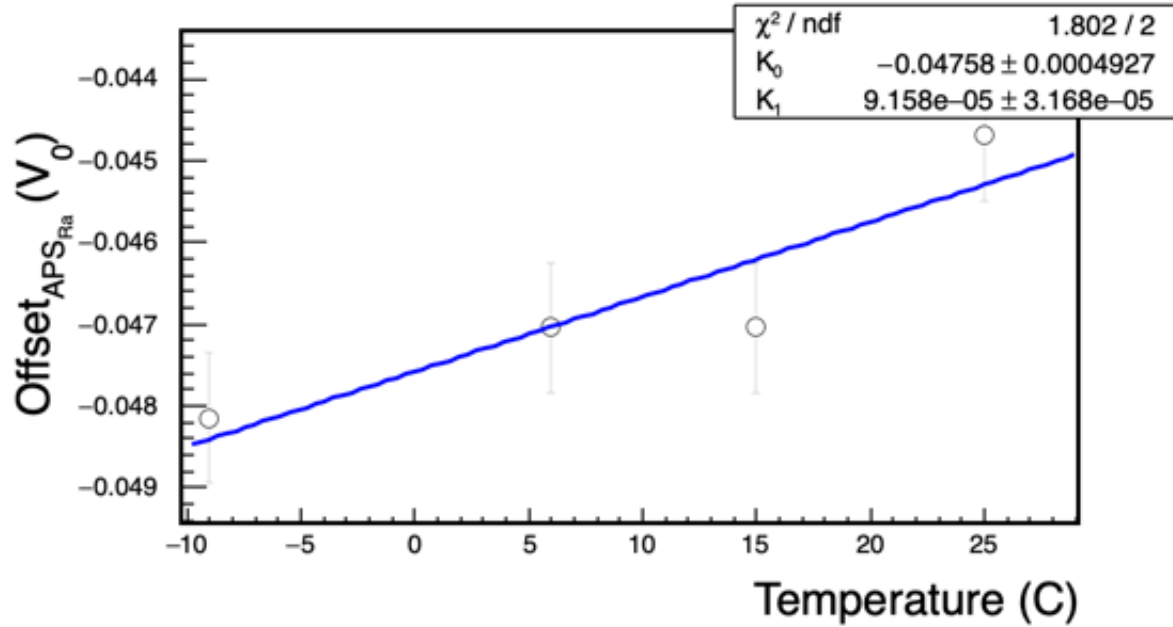
# UTTPS Leakrate Test w. AAFs after final welding

07.08.2019

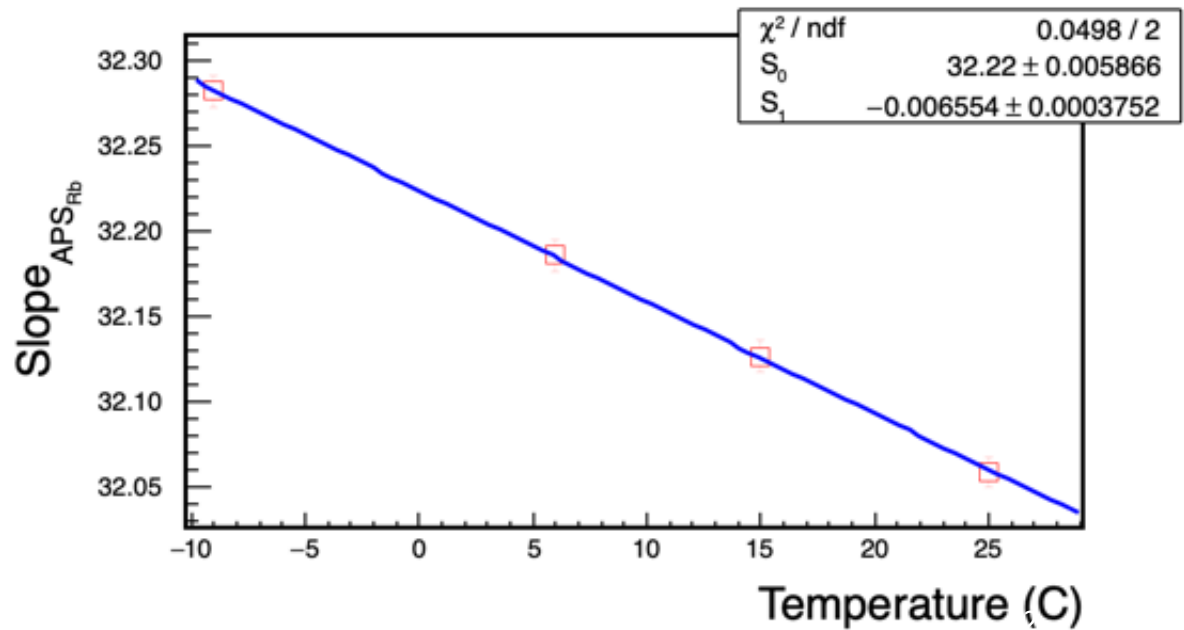
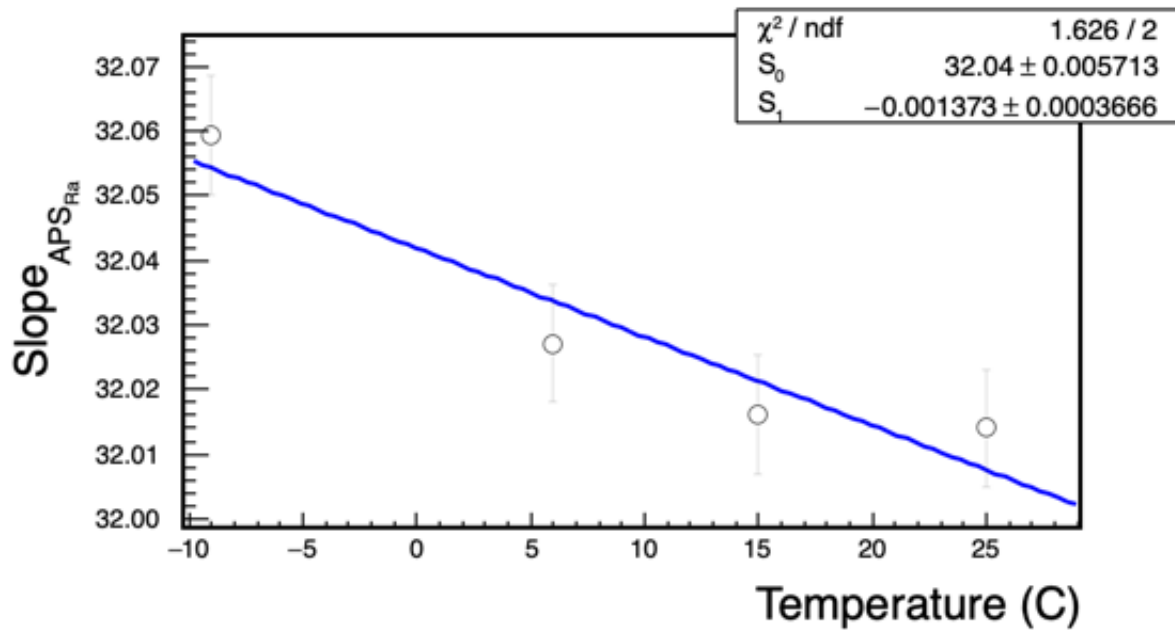
# UTTPS FM APS-(R) Calibration



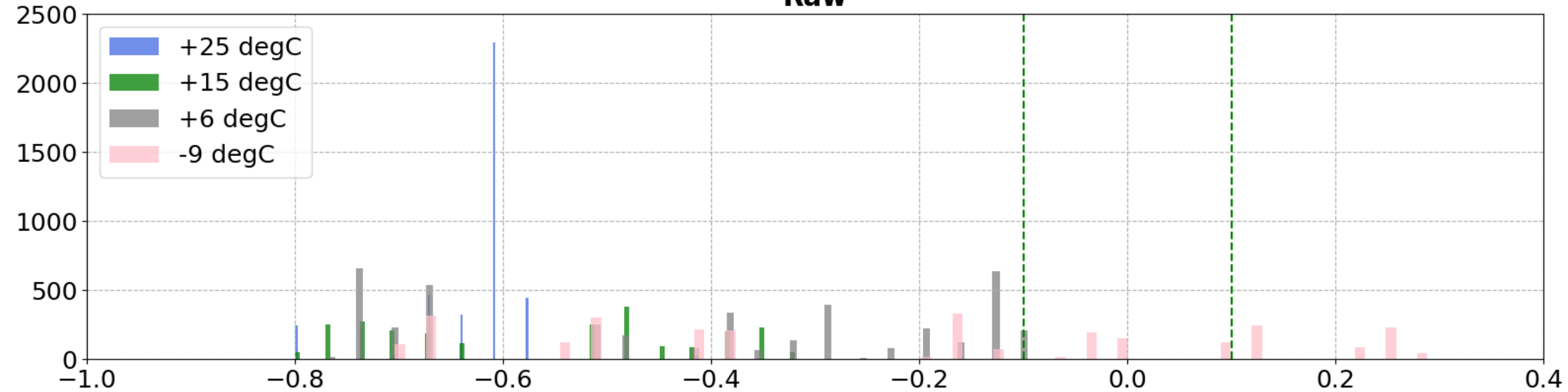




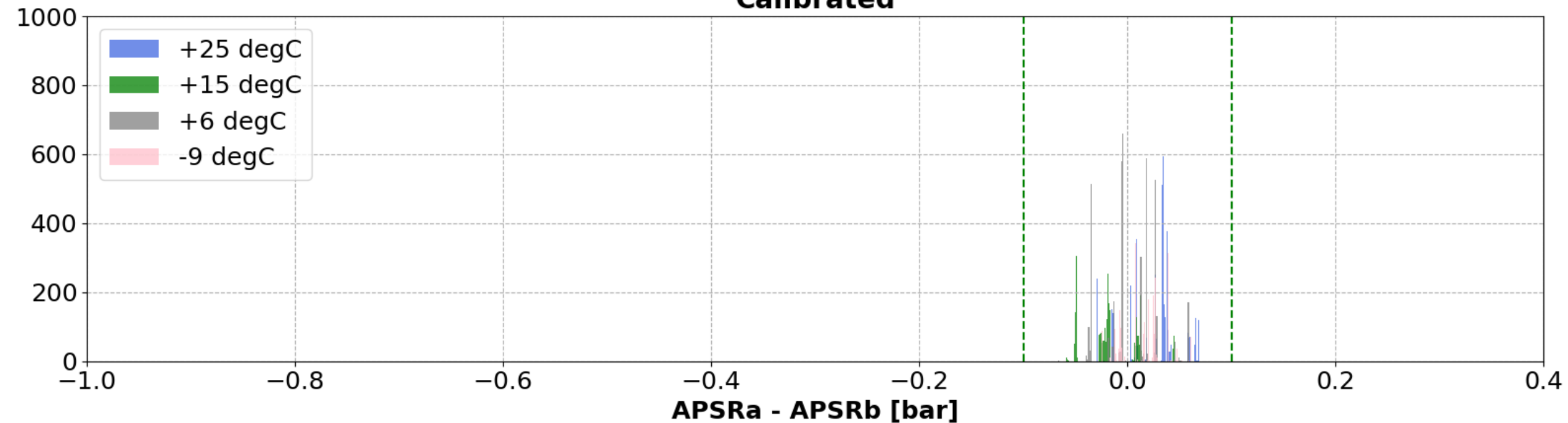
$$P_{\text{cal}}(\text{bar}) = (S_0 + S_1 T) \{V - (K_0 + K_1 T)\}$$



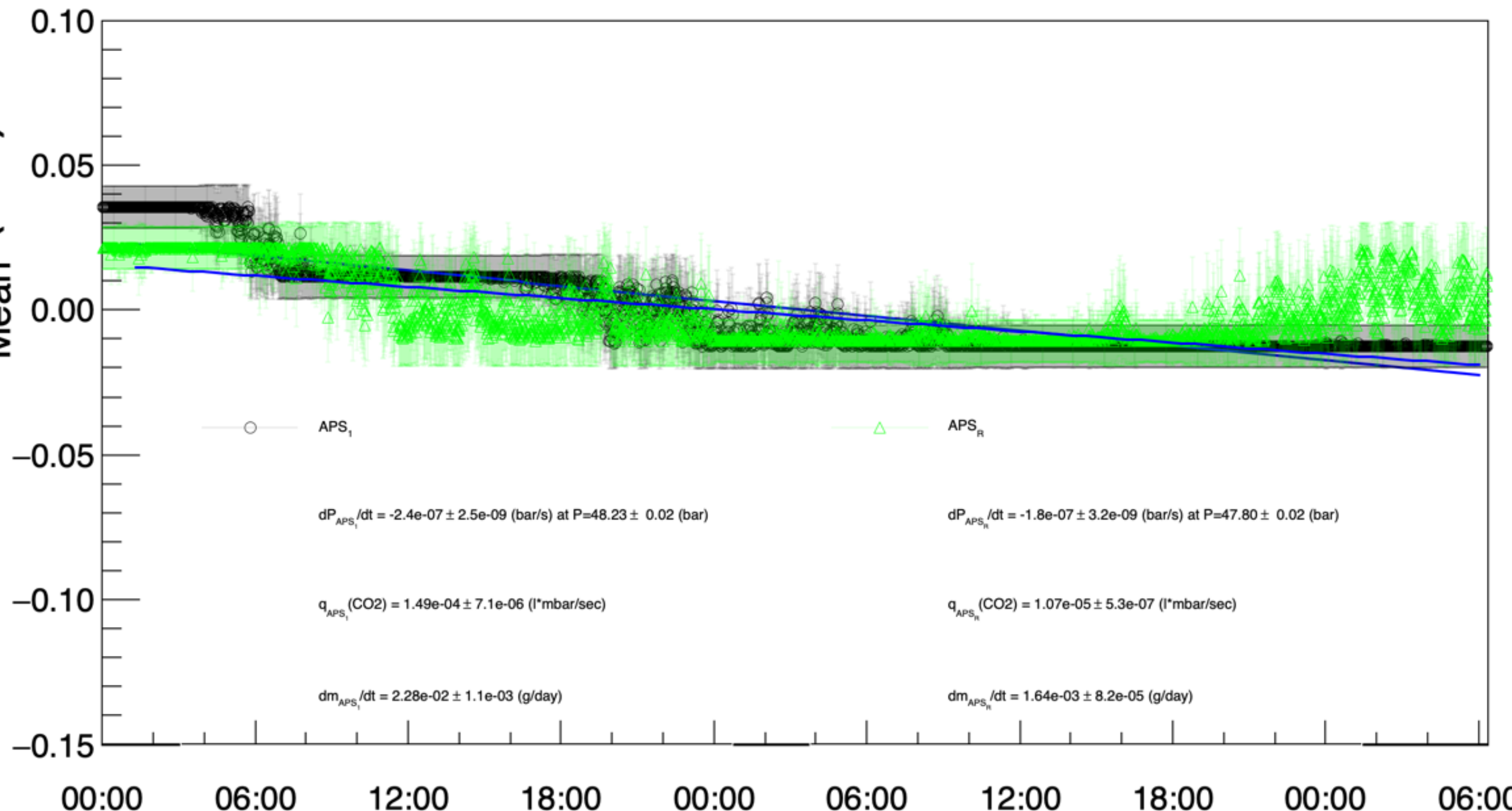
# Raw



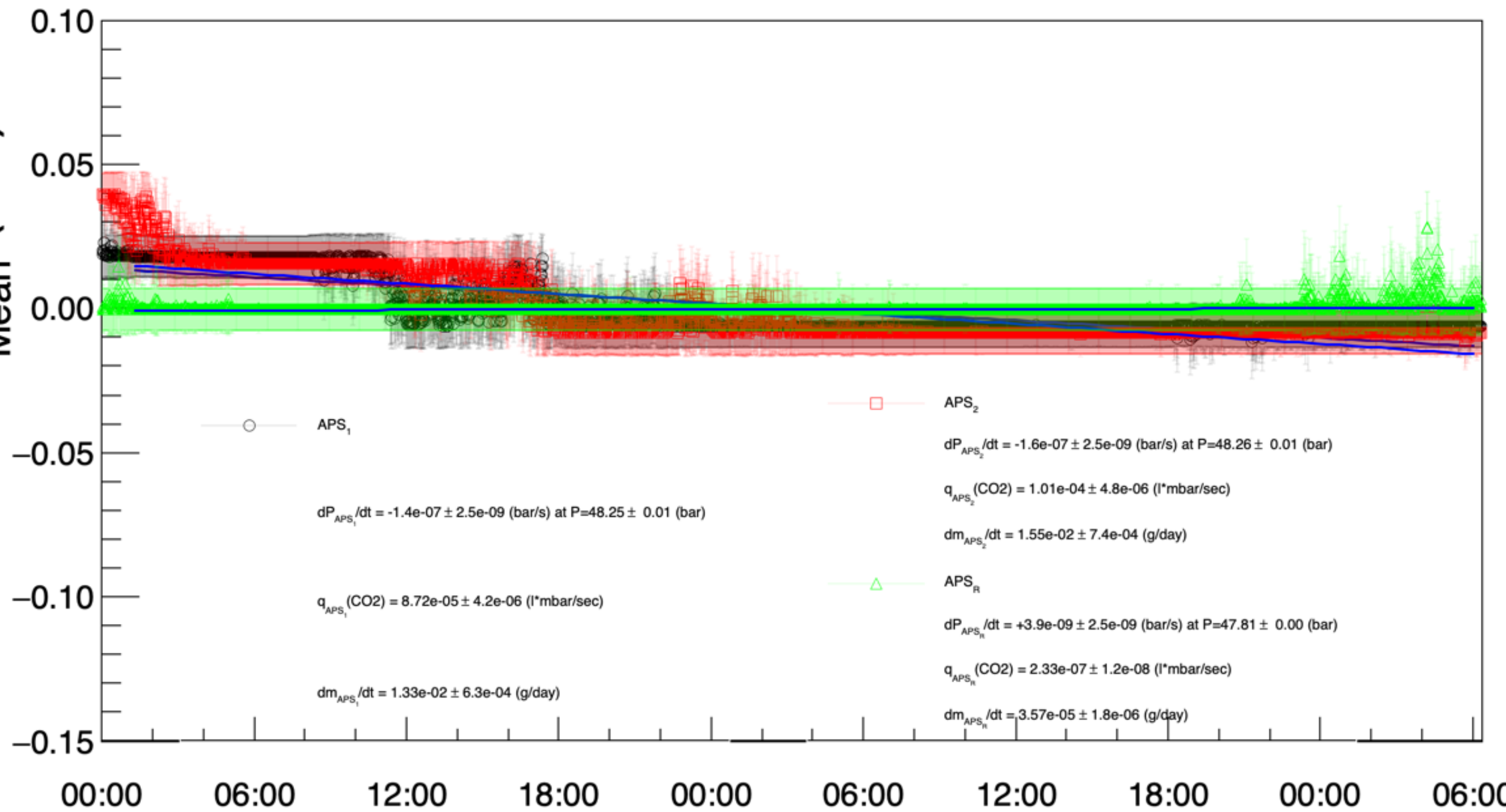
# Calibrated



APS - APS<sub>Mean</sub> (bar)

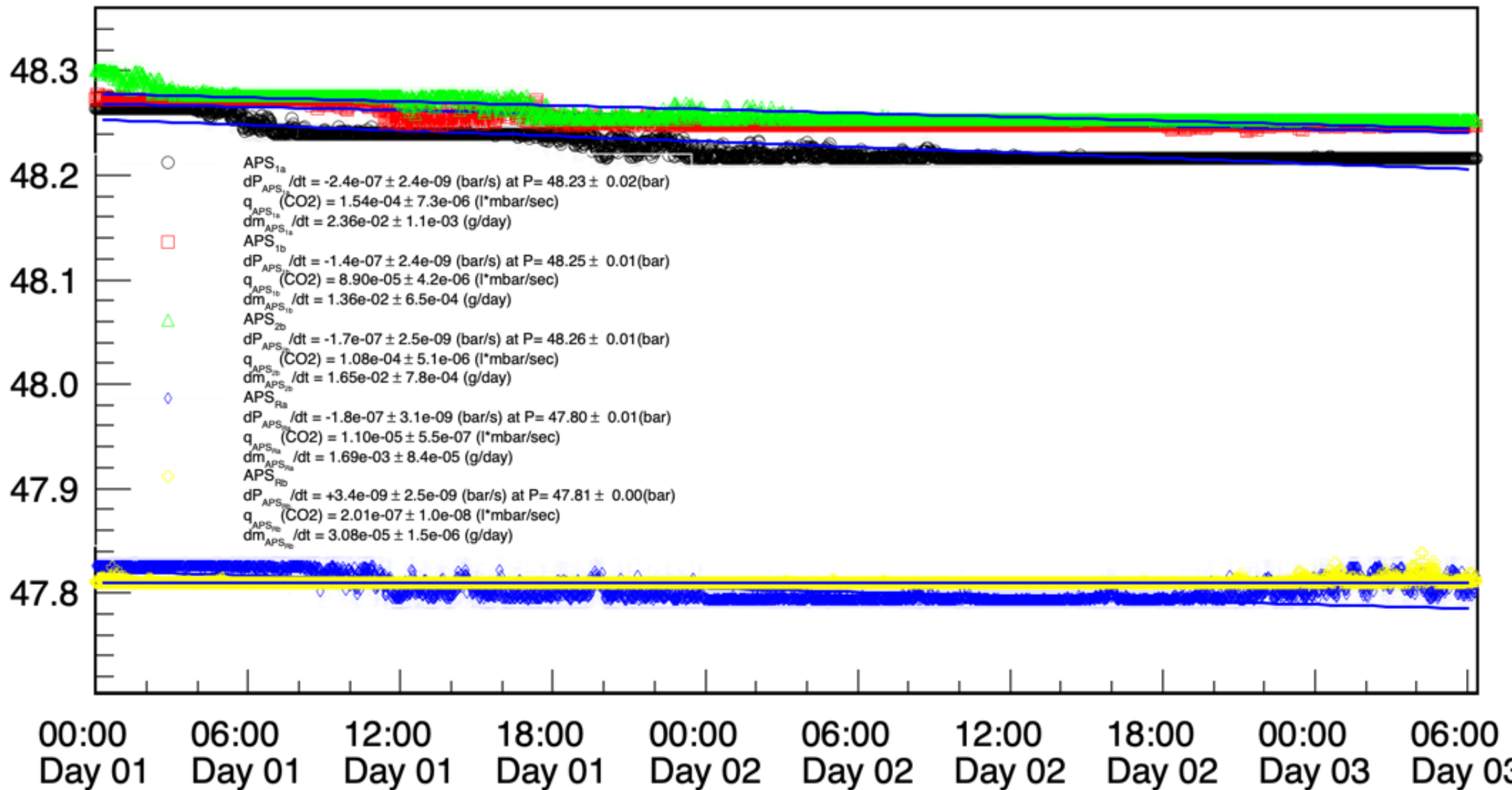


APS - APS<sub>Mean</sub> (bar)

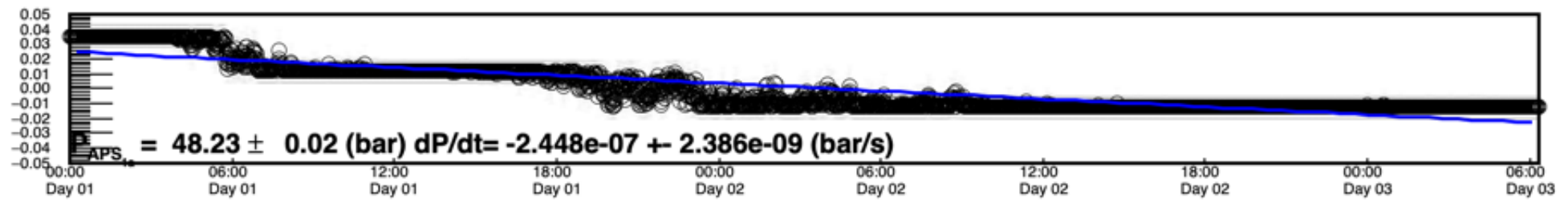




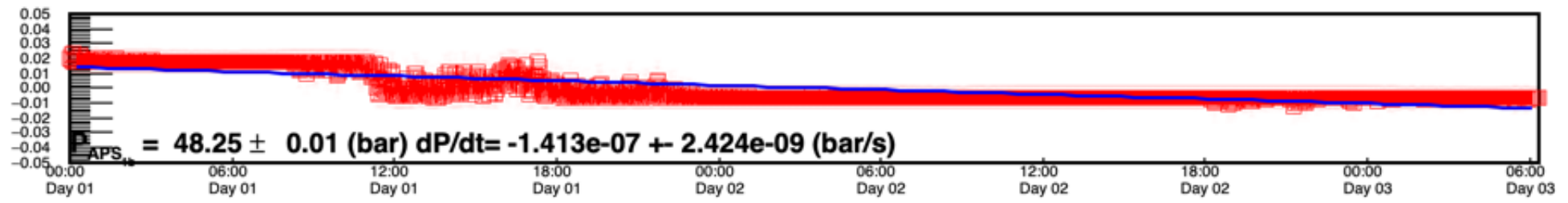
APS (bar)



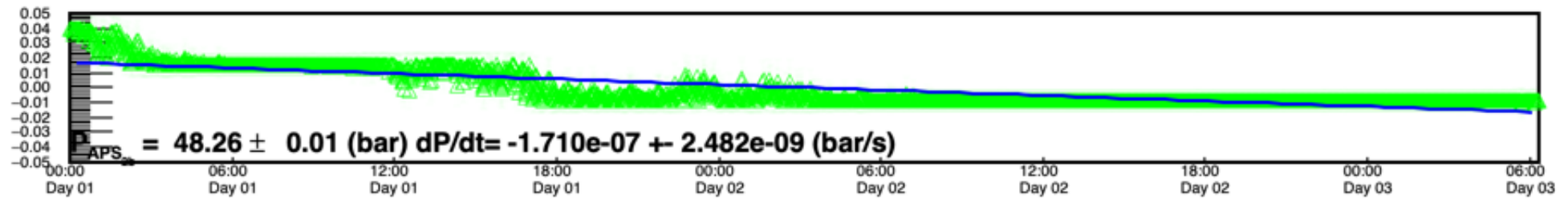
APS - APS<sub>Mean</sub> (bar)



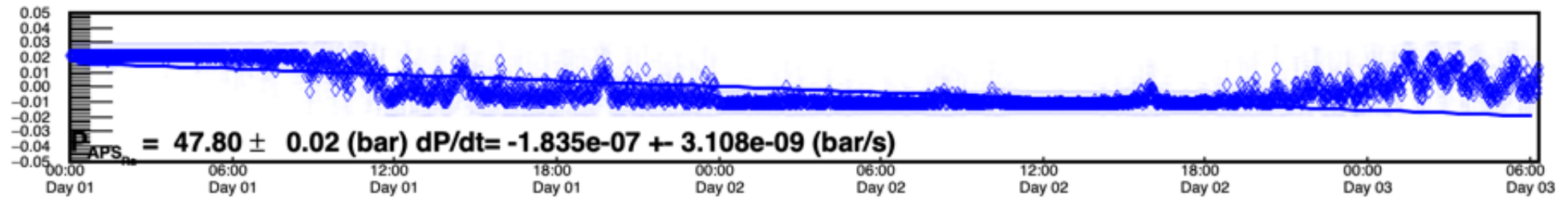
APS - APS<sub>Mean</sub> (bar)



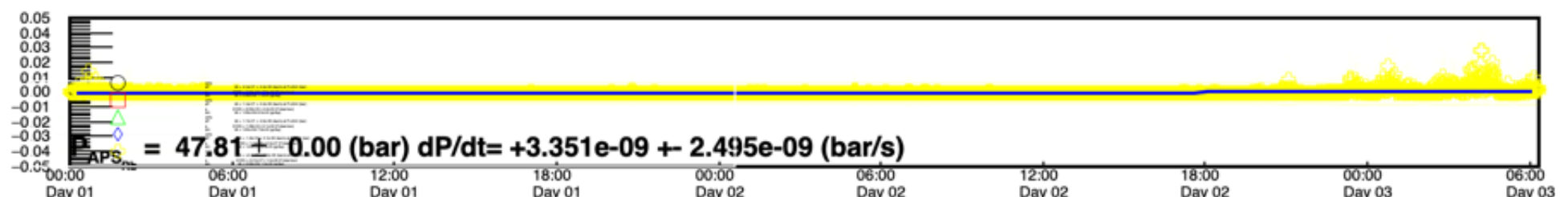
APS - APS<sub>Mean</sub> (bar)



APS - APS<sub>Mean</sub> (bar)



APS - APS<sub>Mean</sub> (bar)



# UTTPS Leakrate = $(1.7 \pm 0.4) \times 10^{-7}$ (l·mbar/sec)

APS ID	CO2 Pressure (bar)	dP/dt (bar/sec)	CO2 Leakrate (l mbar/sec)	CO2 Loss (g/day)	He Leakrate (l mbar/sec @1bar)
APS1a	48.23 ± 0.02	-2.4 × 10 <sup>-7</sup>	1.54 × 10 <sup>-4</sup>	2.36 × 10 <sup>-2</sup>	2.2 × 10 <sup>-7</sup>
APS1b	48.25 ± 0.01	-1.4 × 10 <sup>-7</sup>	8.9 × 10 <sup>-5</sup>	1.36 × 10 <sup>-2</sup>	1.3 × 10 <sup>-7</sup>
APS2b	48.26 ± 0.01	-1.7 × 10 <sup>-7</sup>	1.08 × 10 <sup>-4</sup>	1.65 × 10 <sup>-2</sup>	1.6 × 10 <sup>-7</sup>
APS1r	47.80 ± 0.01	-1.8 × 10 <sup>-7</sup>	1.10 × 10 <sup>-5</sup>	1.69 × 10 <sup>-3</sup>	1.6 × 10 <sup>-8</sup>
APS2r	47.81 ± 0.00	+3.4 × 10 <sup>-9</sup>	2.01 × 10 <sup>-7</sup>	3.08 × 10 <sup>-5</sup>	2.9 × 10 <sup>-10</sup>

$V_{(APS1, APS2)} = 630$  ml,  $V_{(APSR)} = 60$  ml

# UTTPS FM APS Calibration

