

UTC(MIKE) Atomic Bulletin 2018-06

VTT MIKES Metrology monthly Time & Frequency bulletin.

Comments and questions to: time "at" vtt.fi

Date of publication: 2018-06-12

Circular-T issues used for analysis: [363](#), [364](#), [365](#),

First day of analysis interval: 2018-03-02 (58179)

Last day of analysis interval: 2018-05-31 (58269)

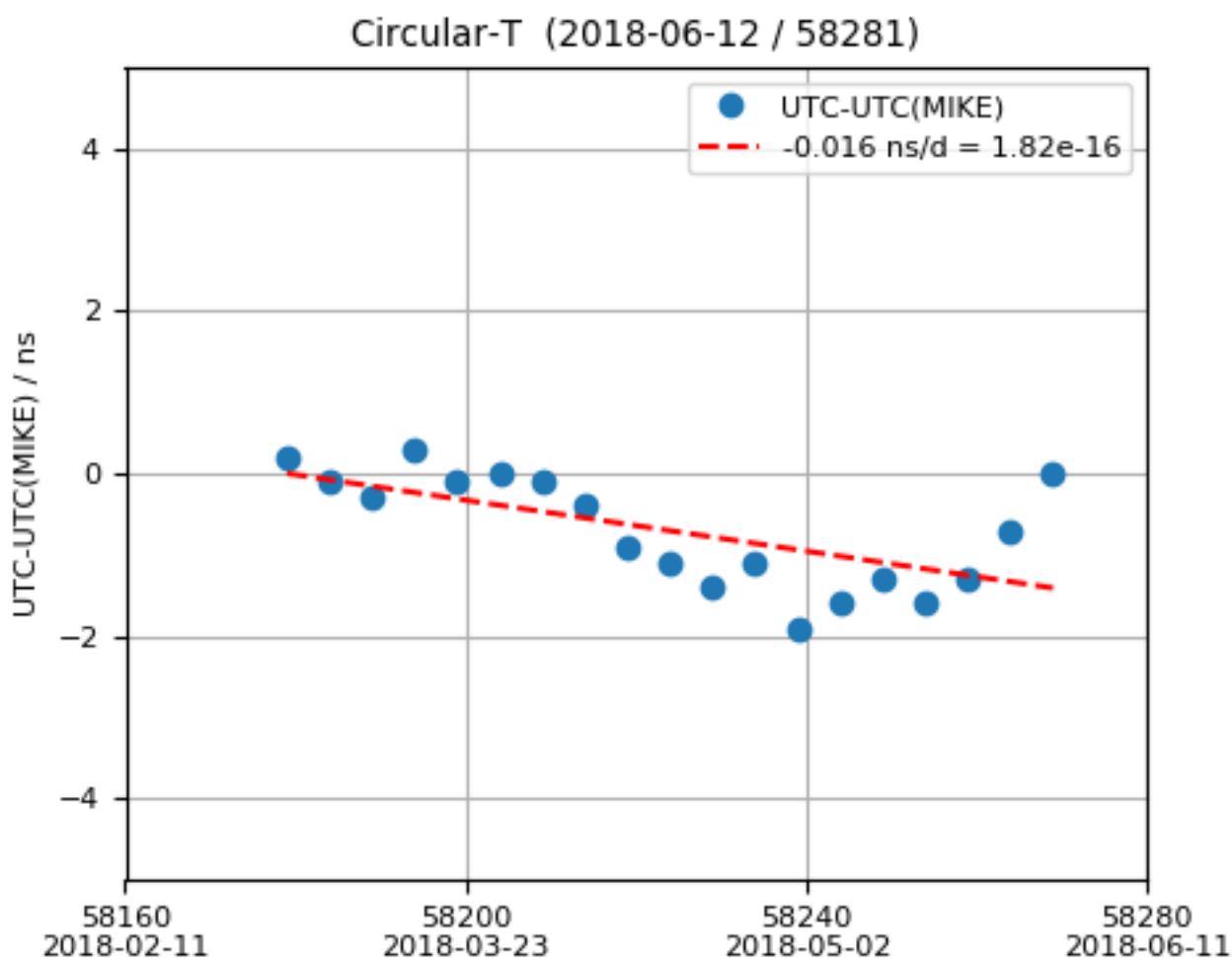
ClockData for analysis: [CDMI 18.03](#), [CDMI 18.04](#), [CDMI 18.05](#),

Notes

58189 AHM2 H-source heater turned ON

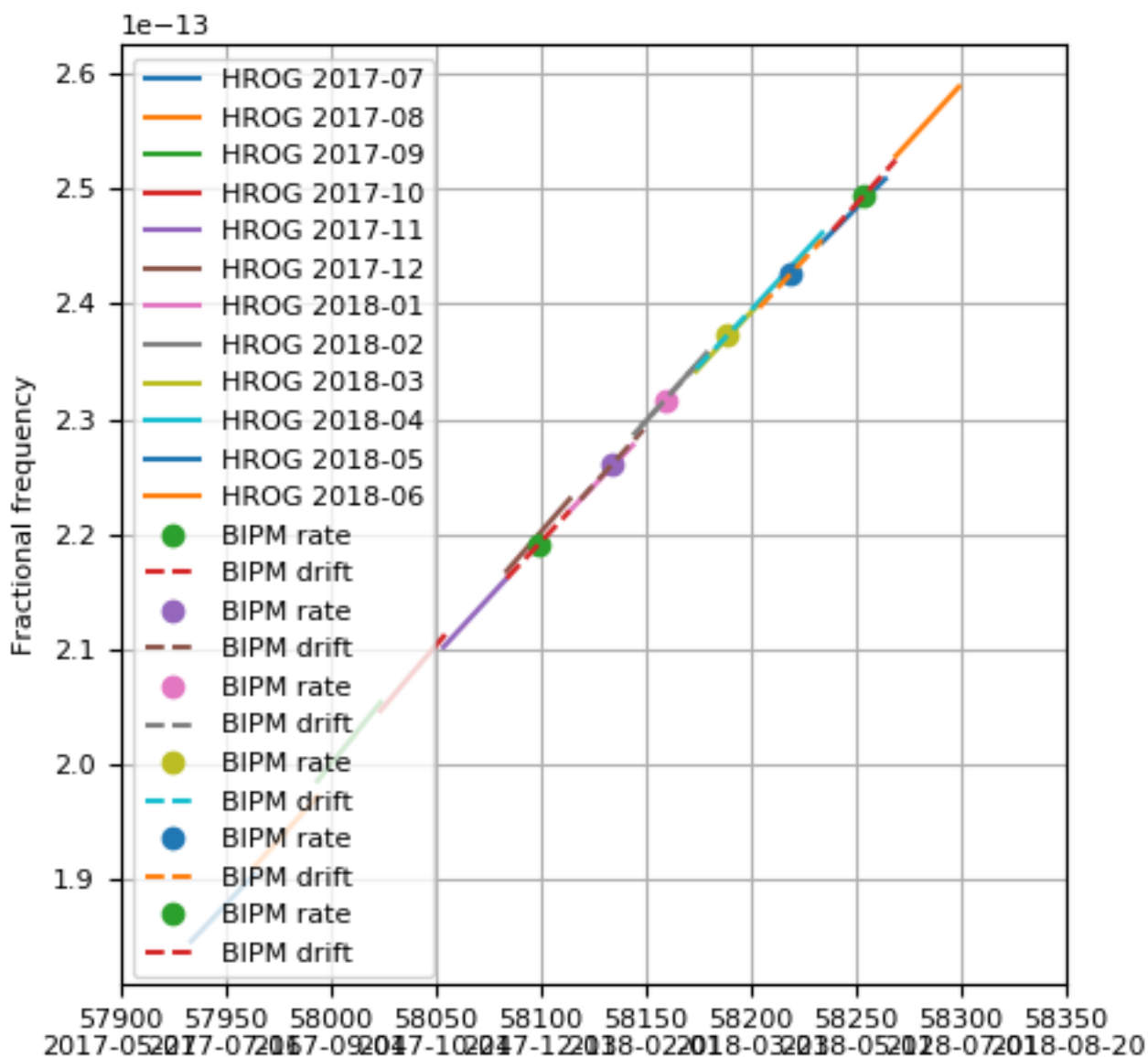
58204 AHM2 TAI-weight non-zero

UTC-UTC(MIKE) as reported in Circular-T



UTC-UTC(MIKE) is available on 5 day intervals on MJD dates ending with 4 or 9. Values are published monthly by the BIPM in Circular-T.

UTC(MIKE) frequency steering parameters



UTC(MIKE) Master Clock is AHM1 since 2017-07-15.

Solid lines indicate UTC(MIKE) steering parameters derived from UTC-ClockData fits.

Symbols and dashed lines indicate MasterClock rates and drifts as published by BIPM.

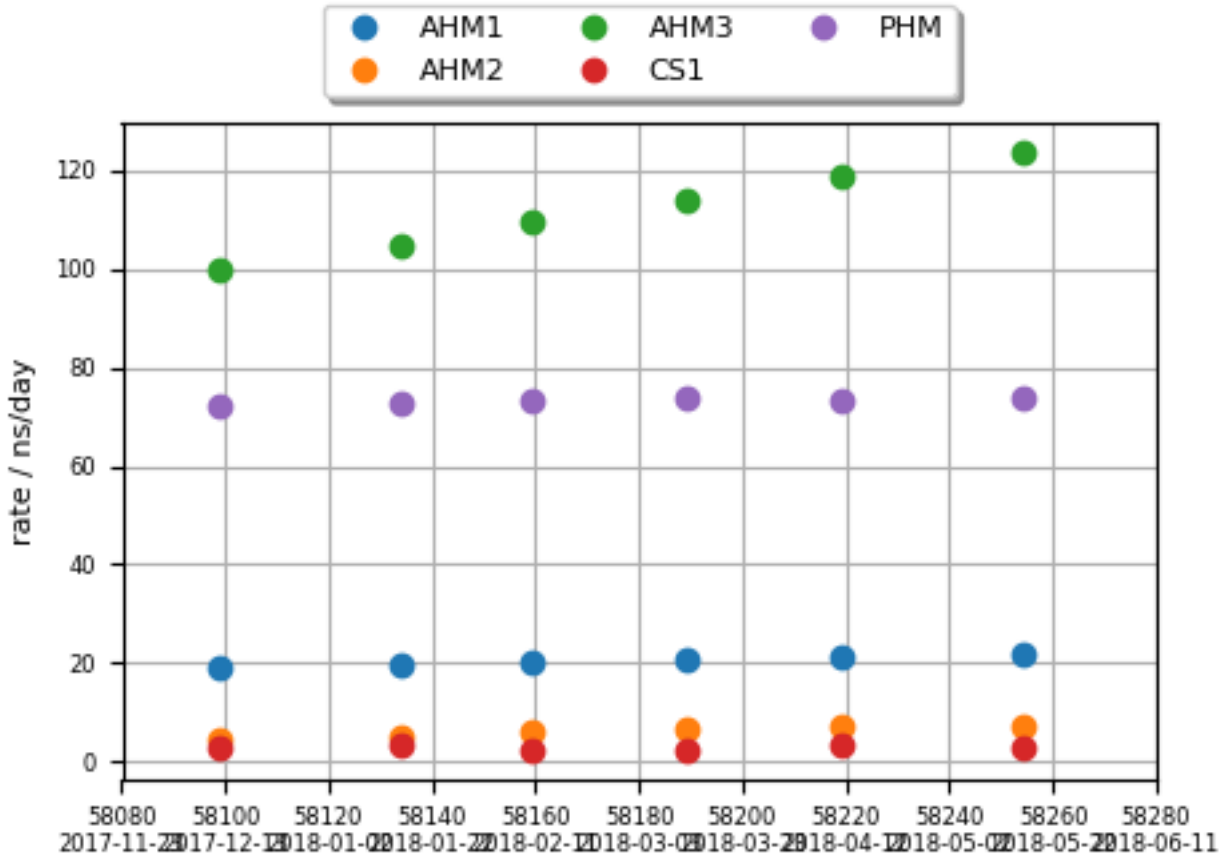
The latest steering parameters are:

$$y = 2.52816e-13 + 2.00399e-16 * d + y_steer$$

with $d = (mjd - mjd0)$ and $mjd0 = 58269$

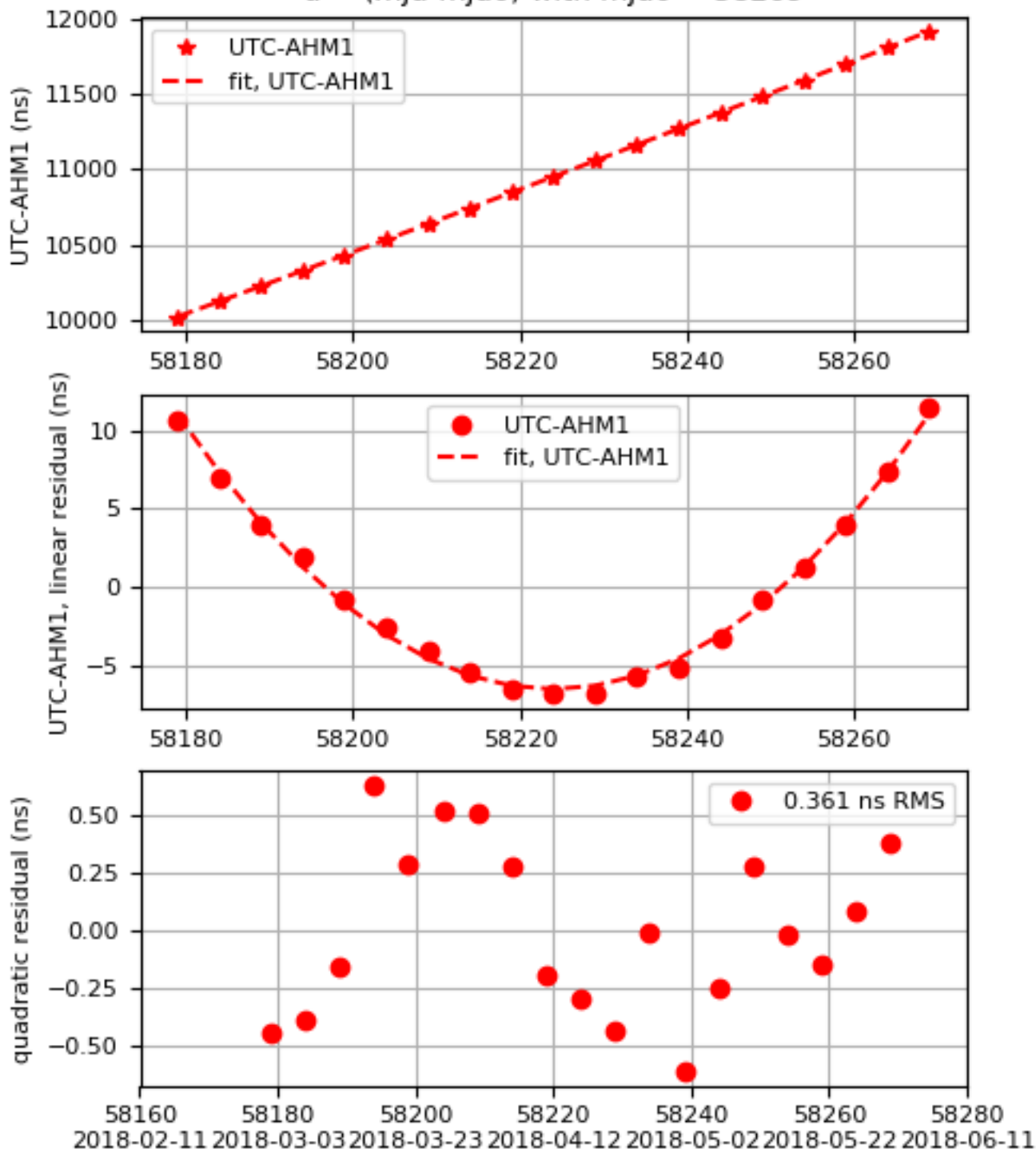
$y_steer = 0$ since 58150

Clock Rates - Summary

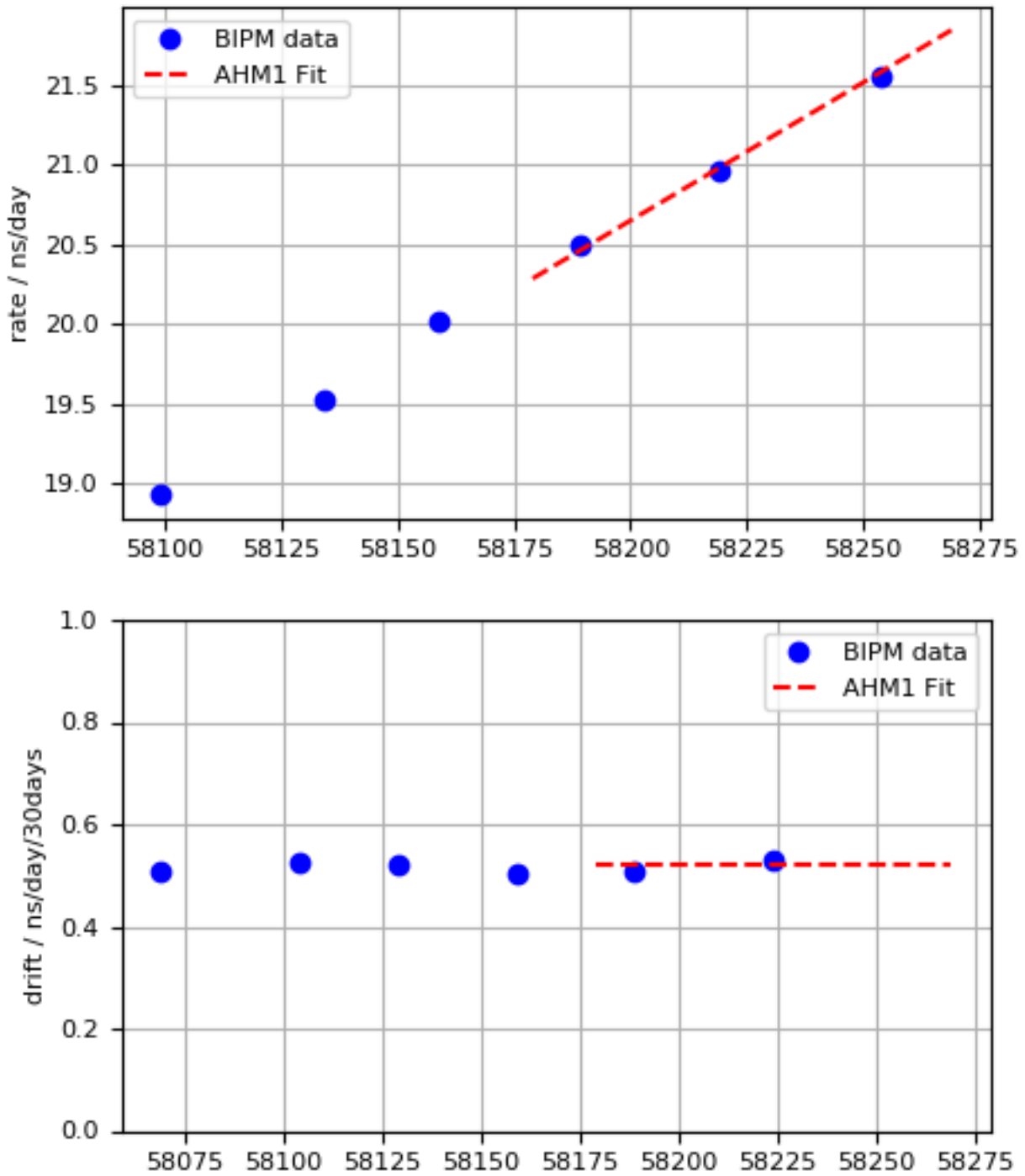


UTC - AHM1 Fit

UTC-AHM1 (2018-06-12 / 58281)
 $x \text{ (ns)} = 11915.021 + 21.843 * d + 0.0087 * d * d$
 $y = -2.52816e-13 + -2.00399e-16 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58269$

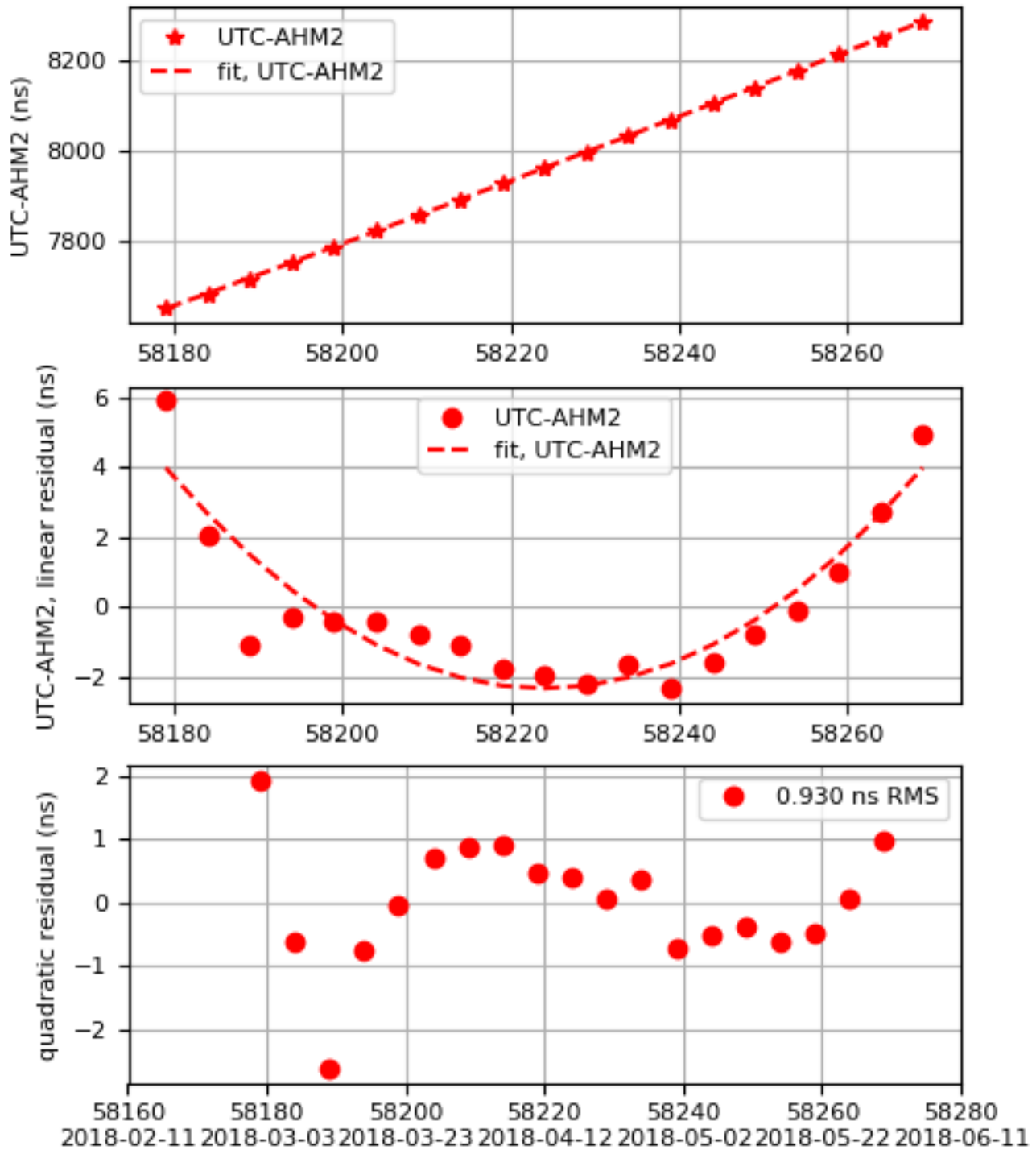


AHM1 Rate and Drift

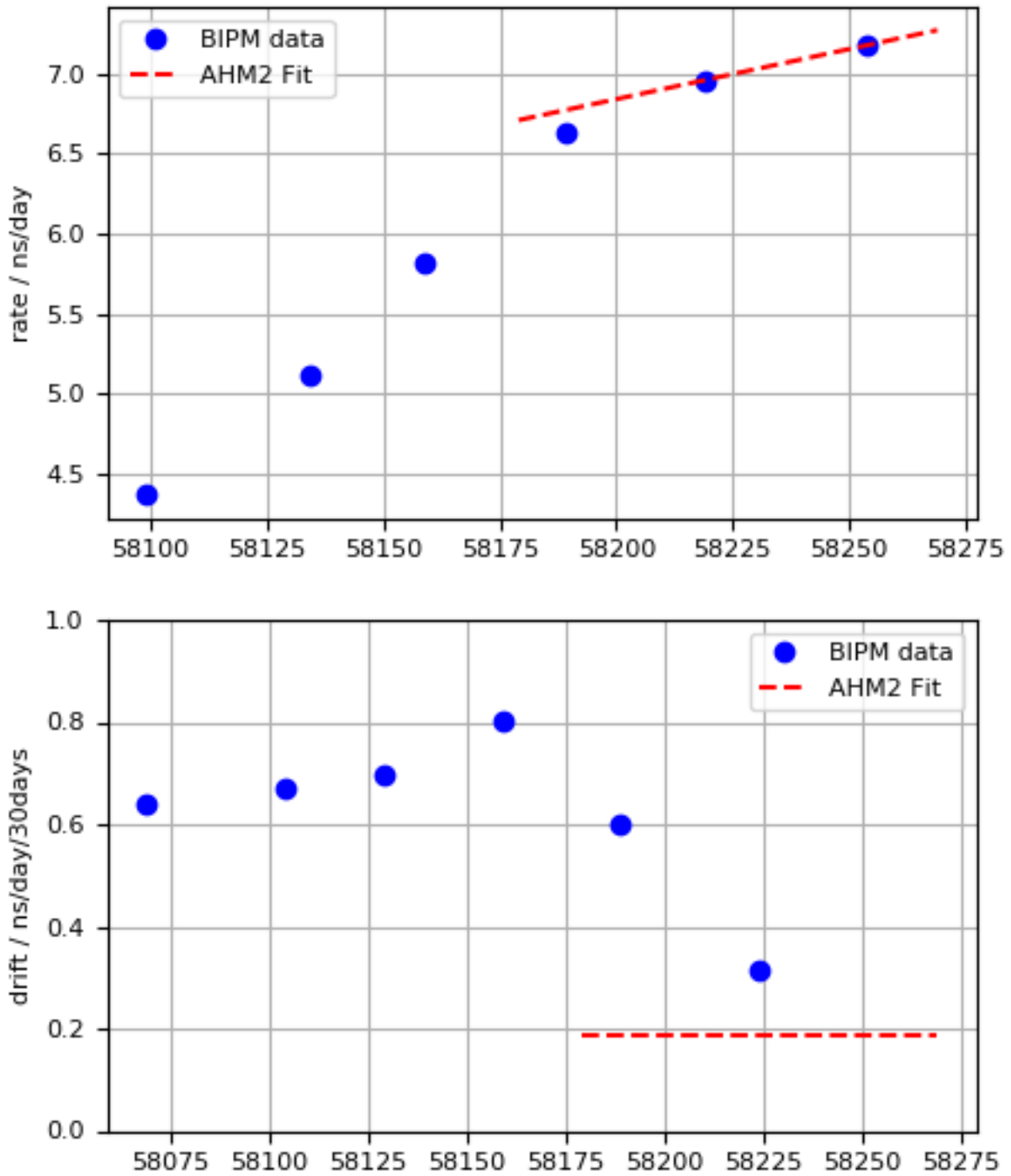


UTC - AHM2 Fit

UTC-AHM2 (2018-06-12 / 58281)
 $x \text{ (ns)} = 8283.116 + 7.274 *d + 0.0031 *d*d$
 $y = -8.41926e-14 + -7.24305e-17 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58269$

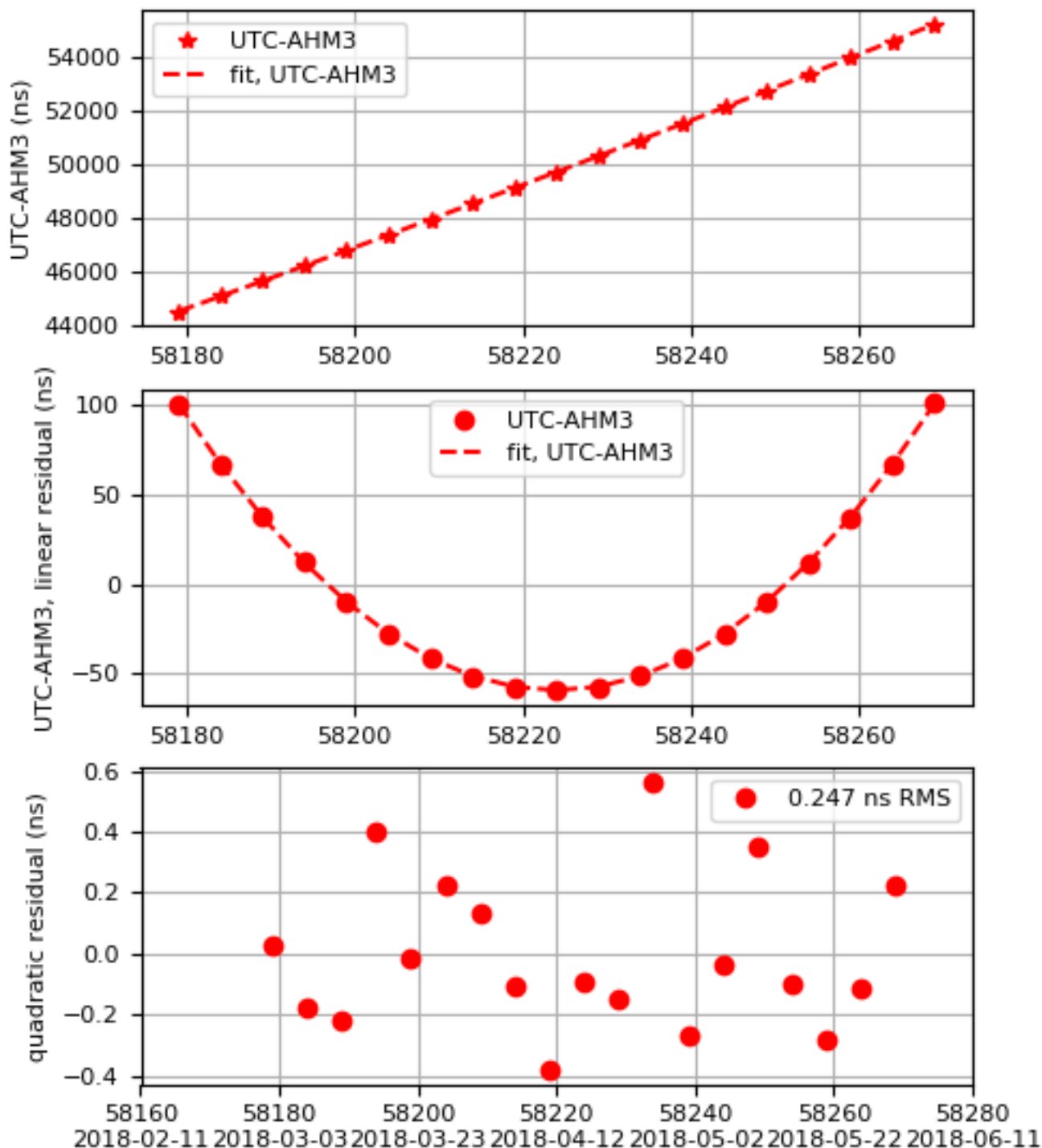


AHM2 Rate and Drift

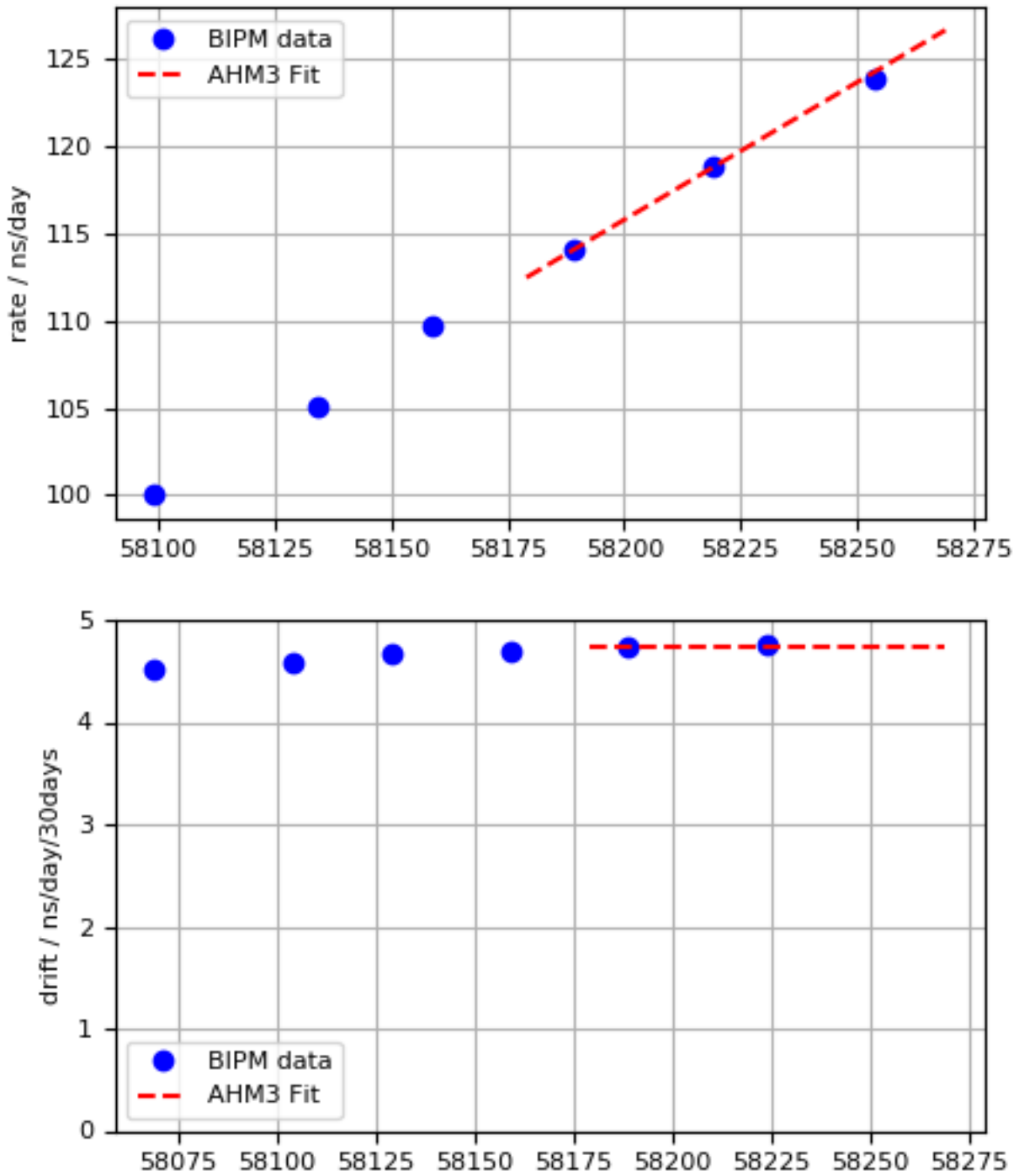


UTC - AHM3 Fit

UTC-AHM3 (2018-06-12 / 58281)
 $x \text{ (ns)} = 55251.875 + 126.647 *d + 0.0788 *d*d$
 $y = -1.46582e-12 + -1.82364e-15 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58269$



AHM3 Rate and Drift



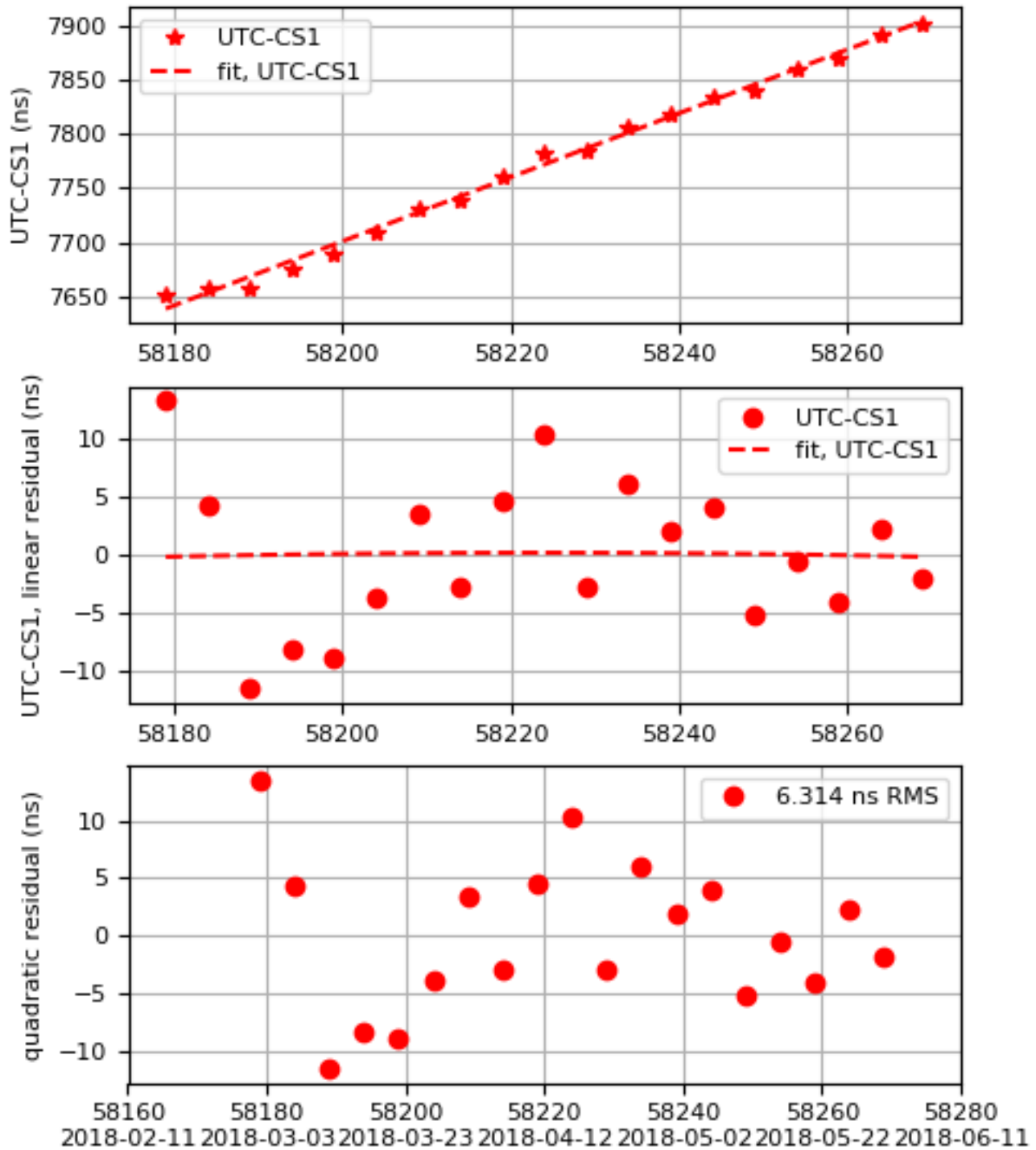
UTC - CS1 Fit

UTC-CS1 (2018-06-12 / 58281)

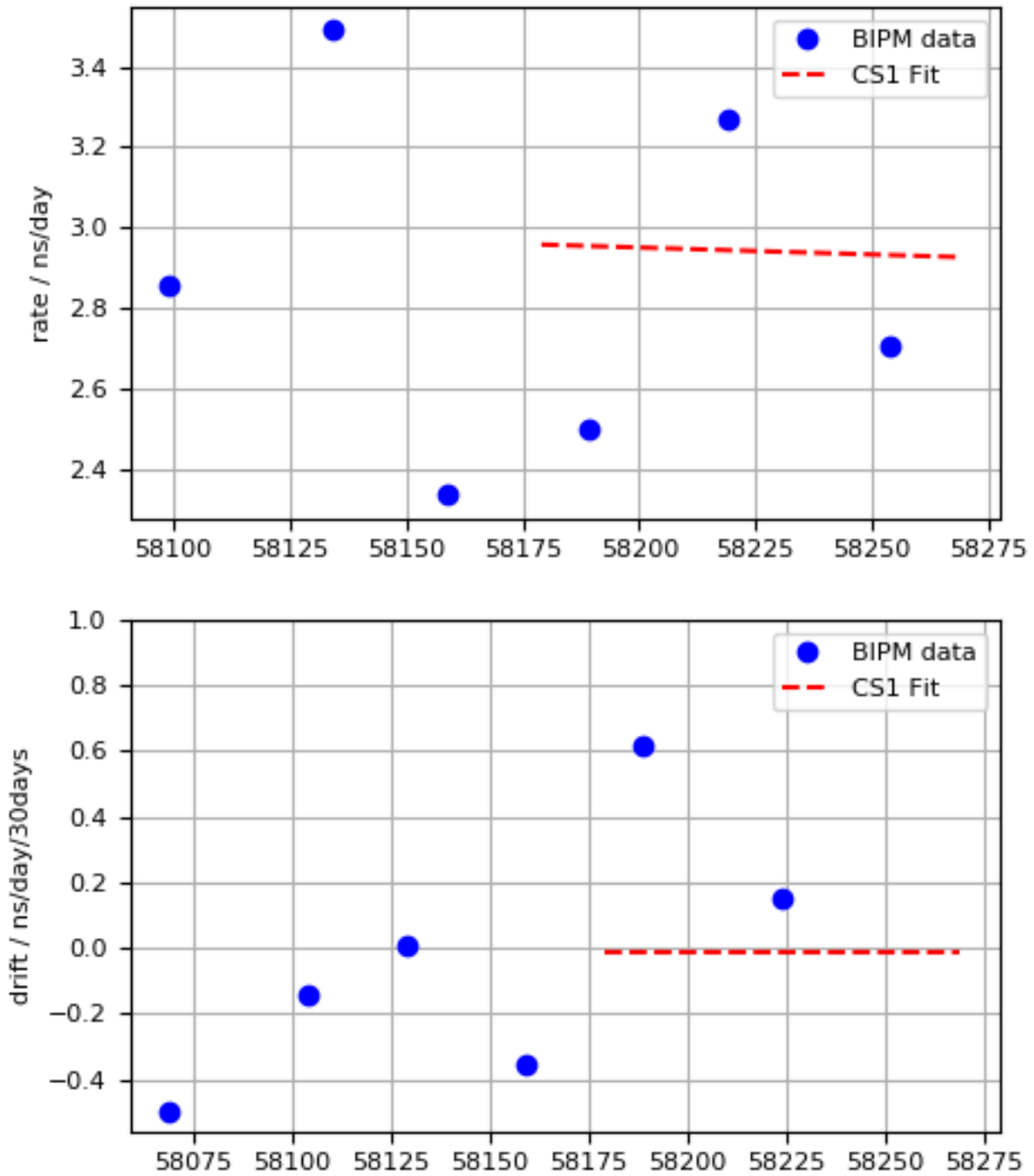
$$x \text{ (ns)} = 7903.831 + 2.928 * d + -0.0002 * d * d$$

$$y = -3.38868e-14 + 3.99965e-18 * d$$

d = (mjd-mjd0) with mjd0 = 58269



CS1 Rate and Drift



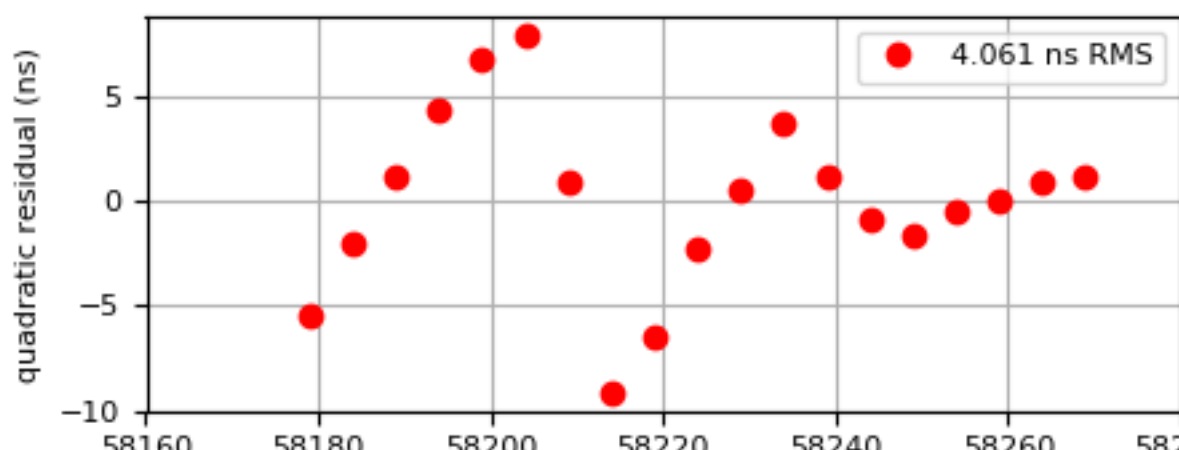
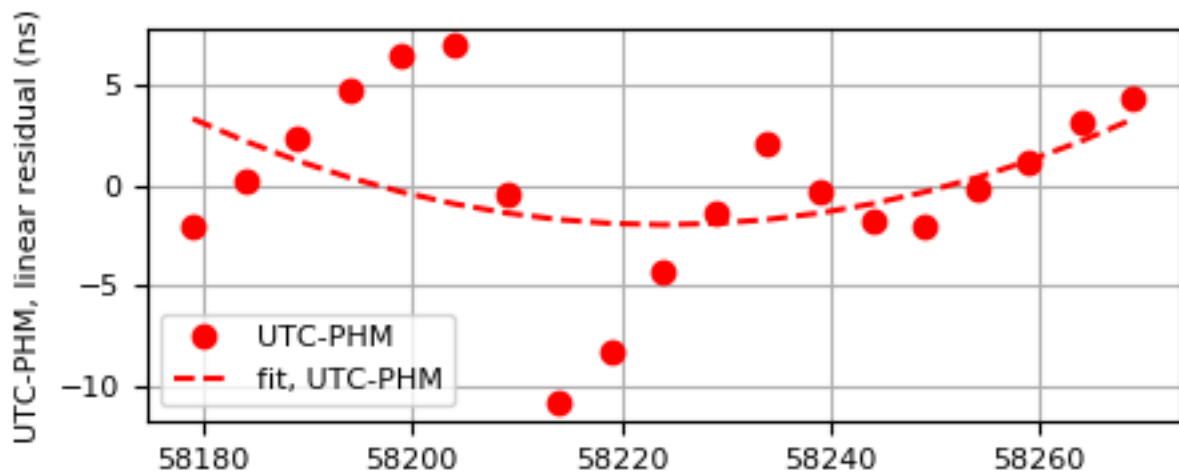
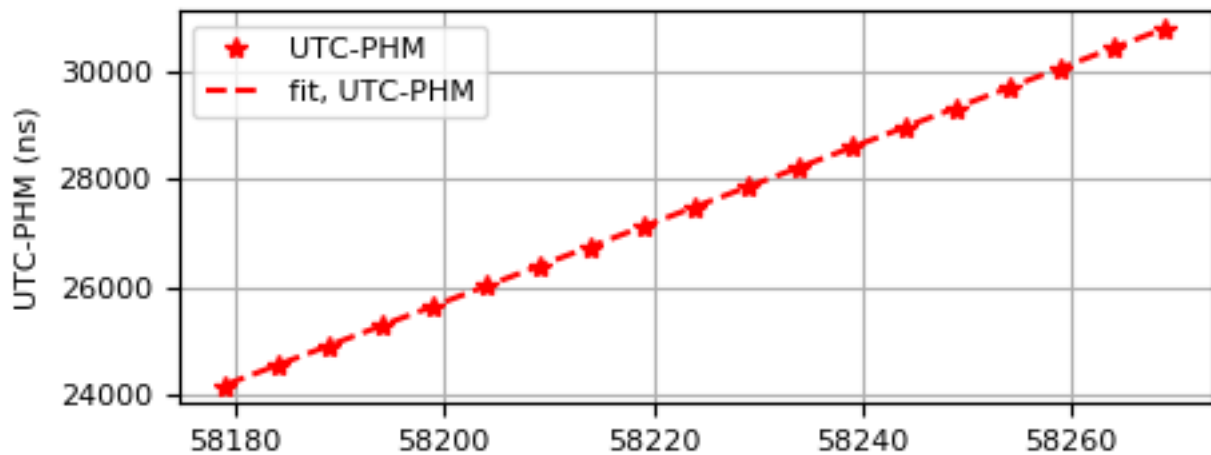
UTC - PHM Fit

UTC-PHM (2018-06-12 / 58281)

$$x \text{ (ns)} = 30816.510 + 73.932 * d + 0.0026 * d * d$$

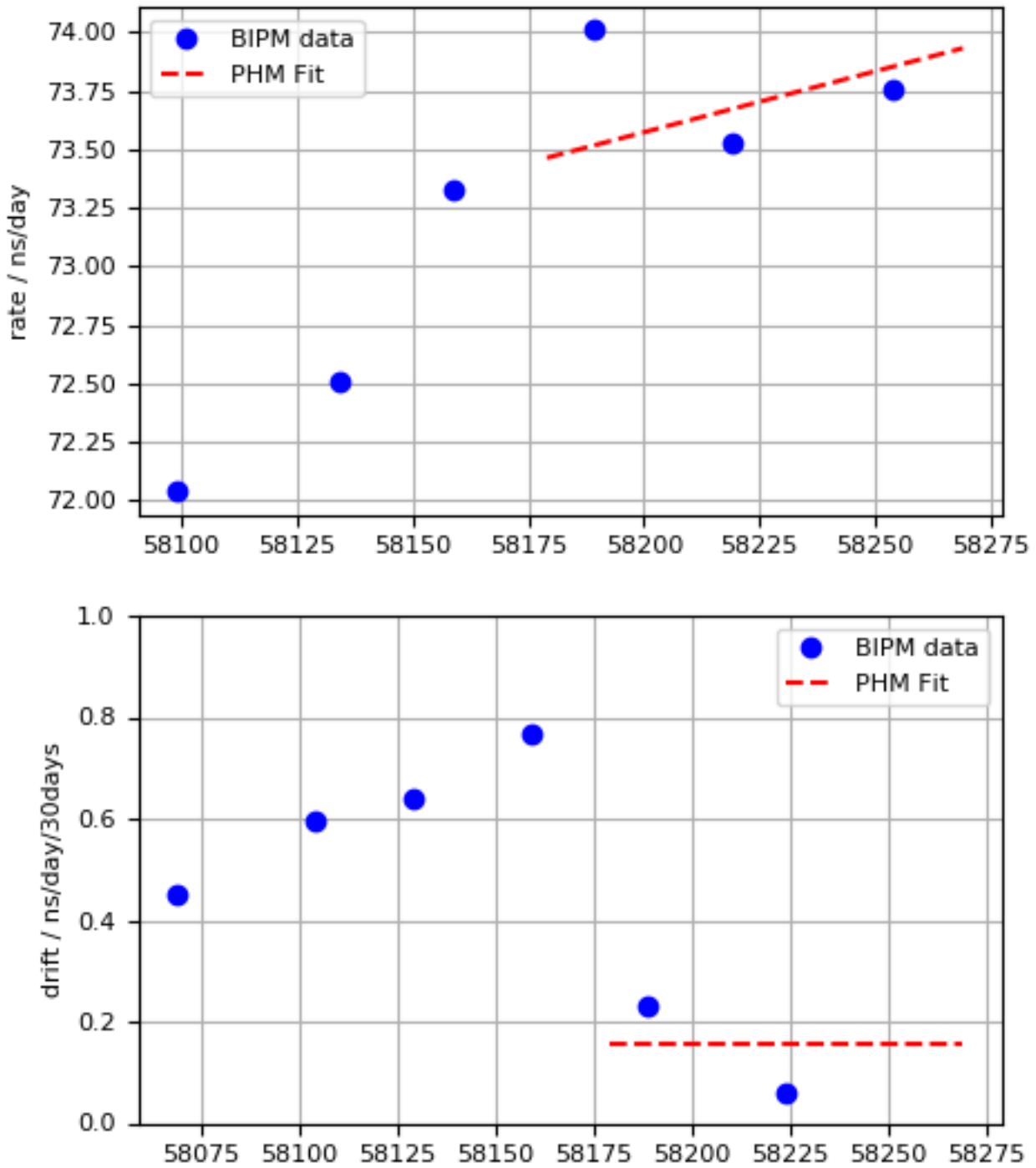
$$y = -8.55695e-13 + -6.02405e-17 * d$$

d = (mjd-mjd0) with mjd0 = 58269



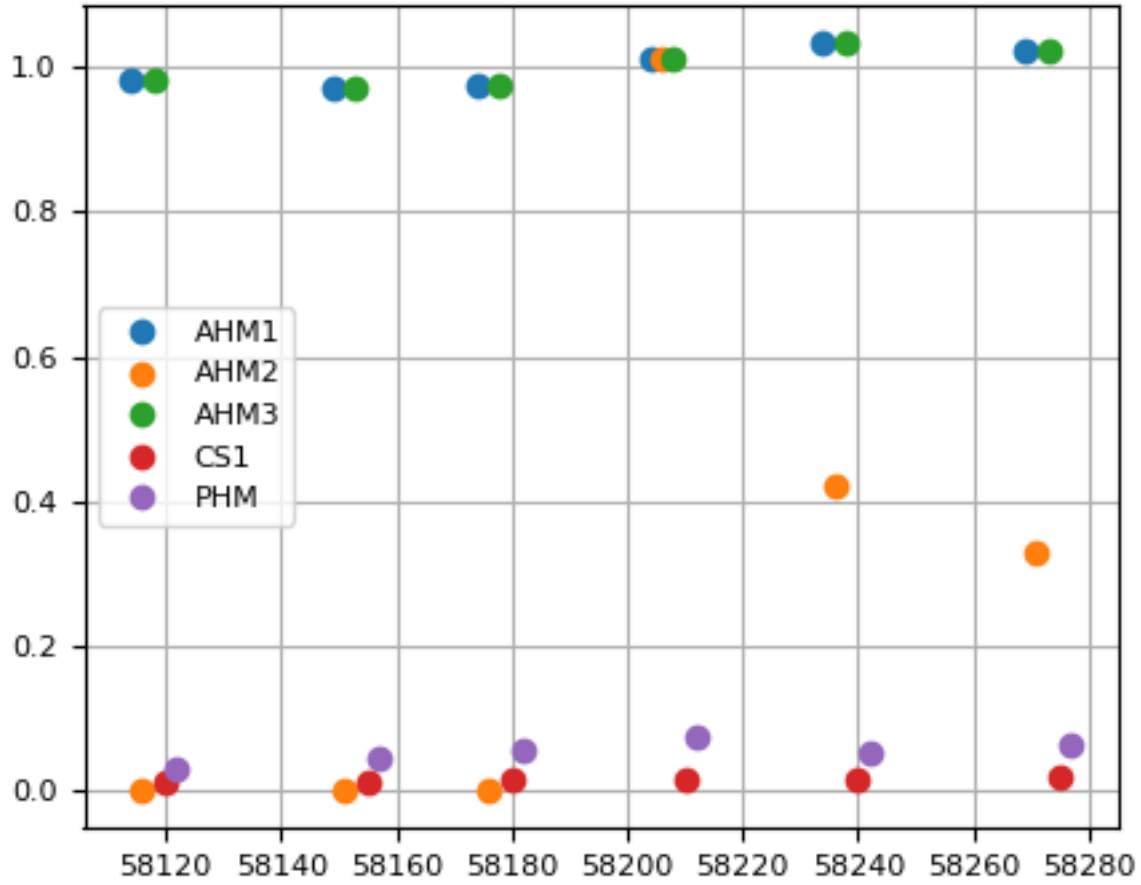
58160 58180 58200 58220 58240 58260 58280
 2018-02-11 2018-03-03 2018-03-23 2018-04-12 2018-05-02 2018-05-22 2018-06-11

PHM Rate and Drift



Clock Weights

RELATIVE WEIGHTS (IN PERCENT) OF THE CLOCKS FOR INTERVALS OF ONE MONTH ENDING AT THE GIVEN DATES



End of Bulletin.