

# UTC(MIKE) Atomic Bulletin 2024-04

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2024-04-15 (60415)

Circular-T issues used for analysis: [433](#), [434](#), [435](#),

First day of analysis interval: 2024-01-05 (60314)

Last day of analysis interval: 2024-03-30 (60399)

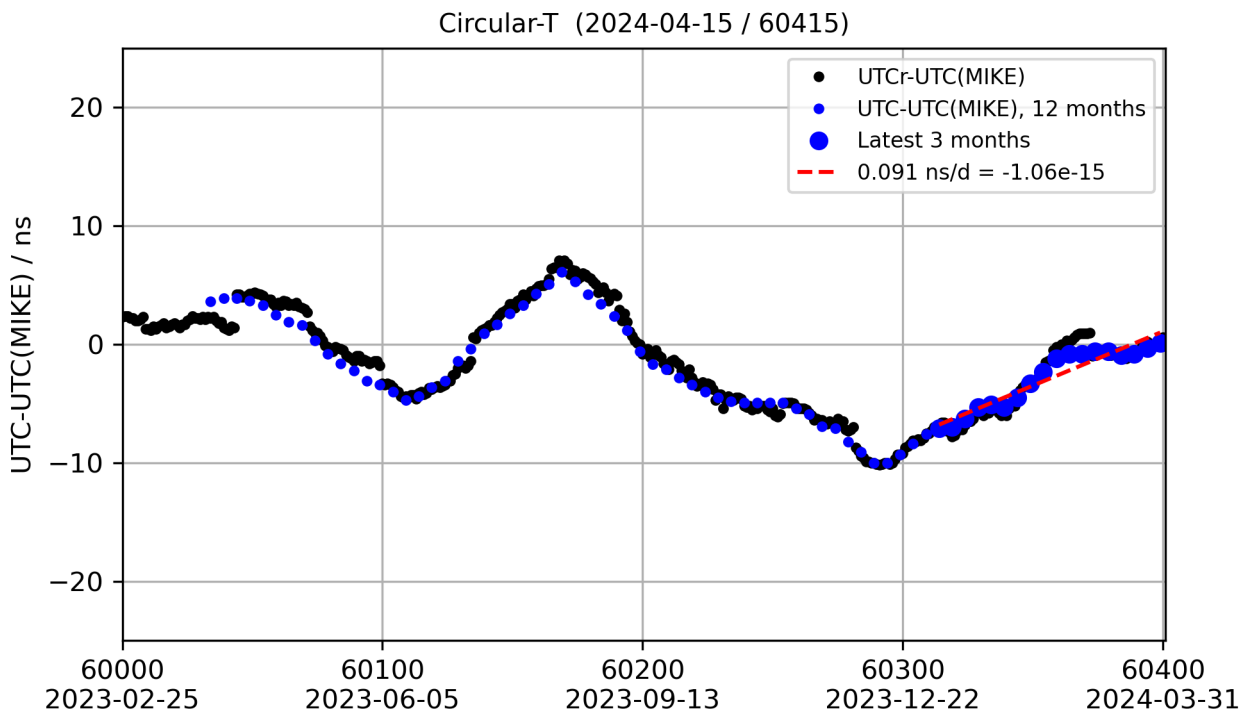
ClockData for analysis: [CDMI 24.01](#), [CDMI 24.02](#), [CDMI 24.03](#),

The Atomic Bulletin is archived at: [https://monitor.mikes.fi/ftp/atomic\\_bulletin/](https://monitor.mikes.fi/ftp/atomic_bulletin/)

## Notes

- 59652 (2022-03-14) AB2022-03 keep steering correction +3e-15
- 59681 (2022-04-12) AB2022-04 reduce steering correction to +1.5e-15
- 59712 (2022-05-13) AB2022-05 keep steering correction +1.5e-15
- 59744 (2022-06-14) AB2022-06 keep steering correction +1.5e-15
- 59760 (2022-06-30) steering correction set to zero
- 59809 (2022-08-18) Stop reporting ClockData for AHM2 (BIPM 1404108). Maser auto-tuning seems broken.
- 59929 (2022-12-16) AB2022-12 remove AHM2 (BIPM 1404108) from analysis.
- 59960 (2023-01-16) AB2023-01 GNSS link uncertainty increased to 3.0 ns in Circular-T no.420
- 60100 (2023-06-05) AHM1 maser stopped working (out of Hydrogen?).
- 60139 (2023-07-14) remove AHM1, add AHM2 to analysis.
- 60321 (2024-01-12) missing ClockData 60304-60309 due to database-issue.

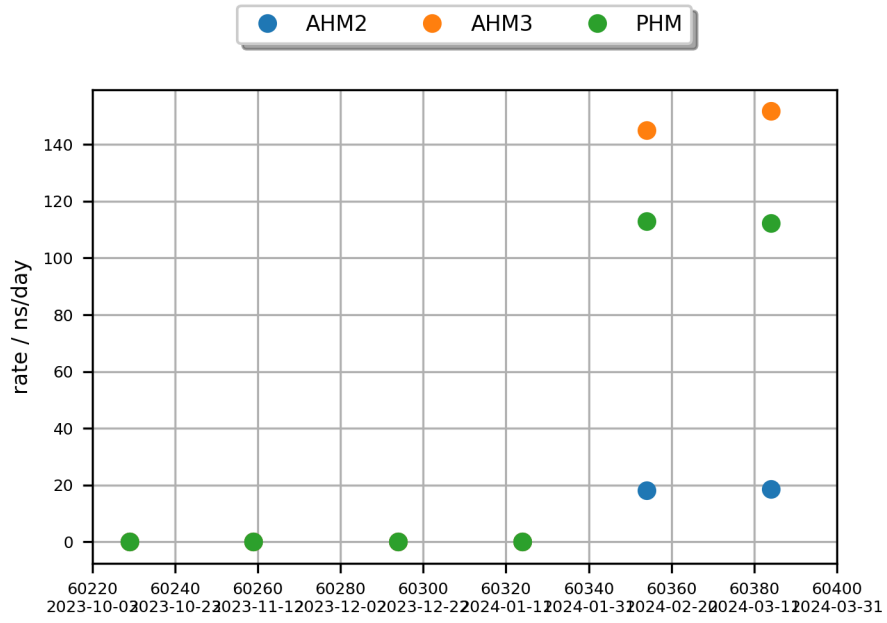
## UTC-UTC(MIKE) as reported in Circular-T



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.

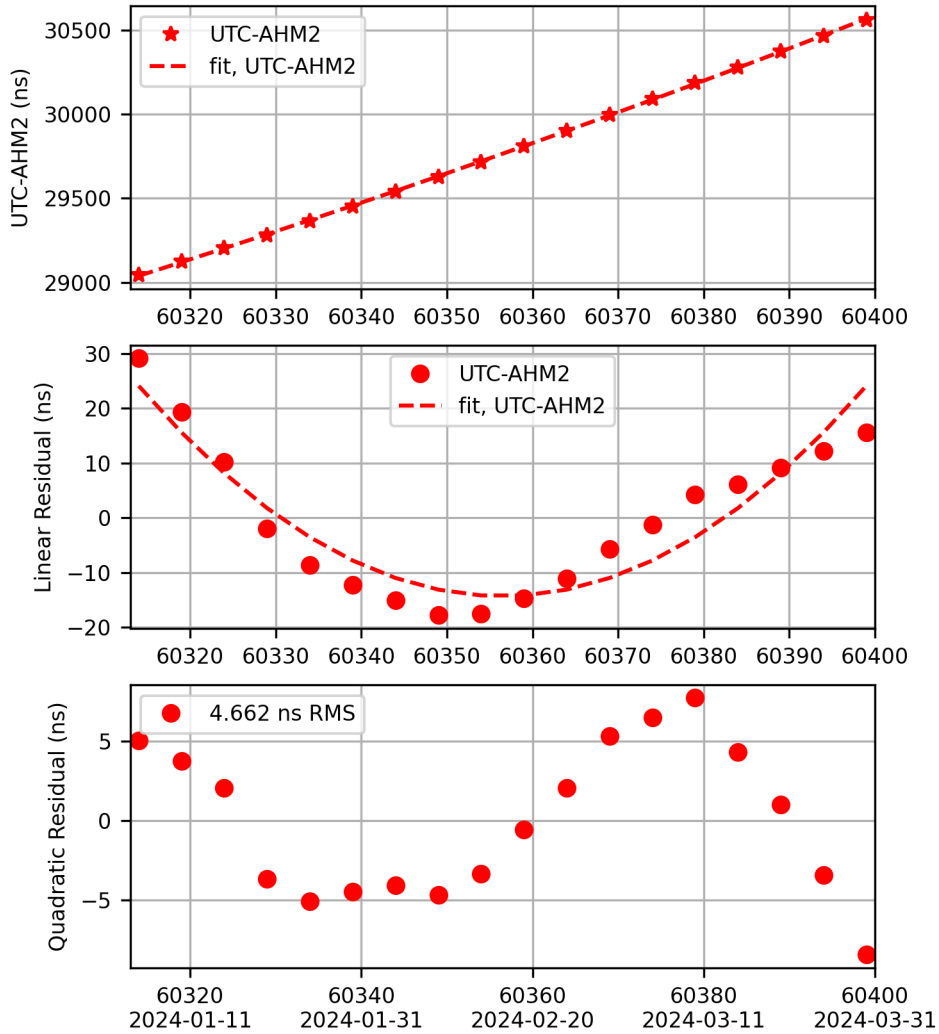
## Clock Rates - Summary

Clock rates as reported by the BIPM in the monthly r-report.

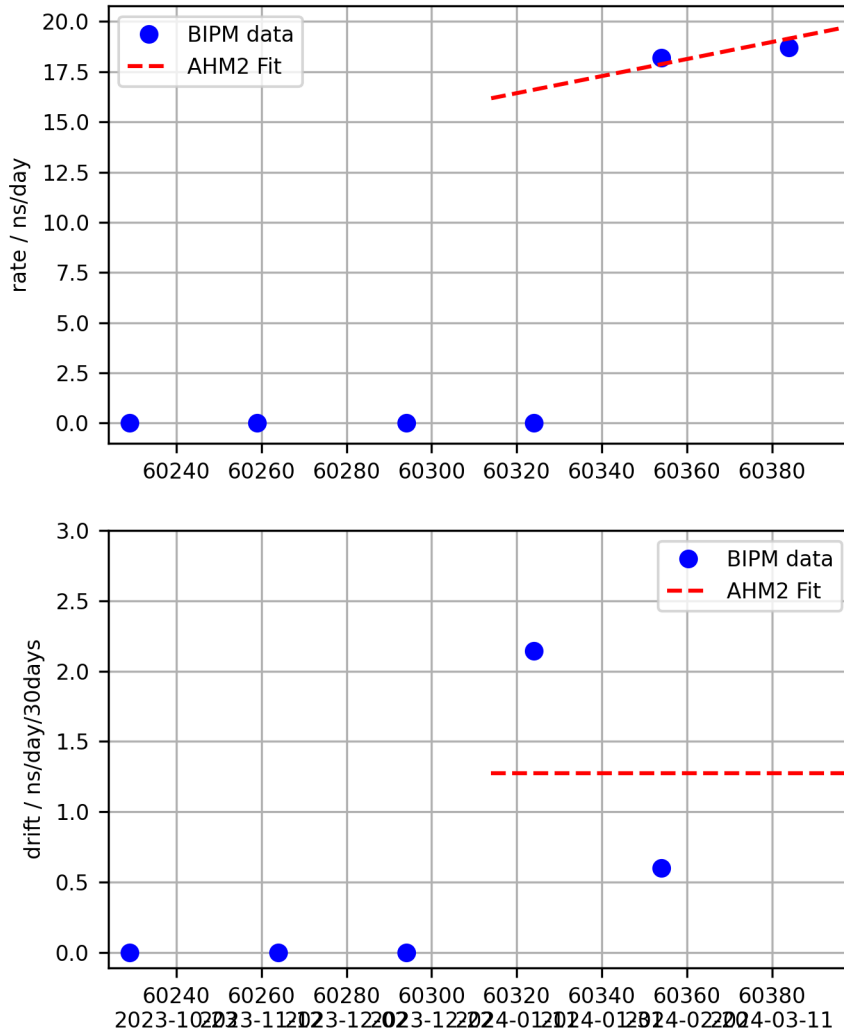


## UTC - AHM2 Fit

UTC-AHM2 (2024-04-15 / 60415)  
 $x \text{ (ns)} = 30566.550 + 19.790 *d + 0.0212 *d*d$   
 $y = -2.29047e-13 + -4.91862e-16 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with } \text{mjd0} = 60399$

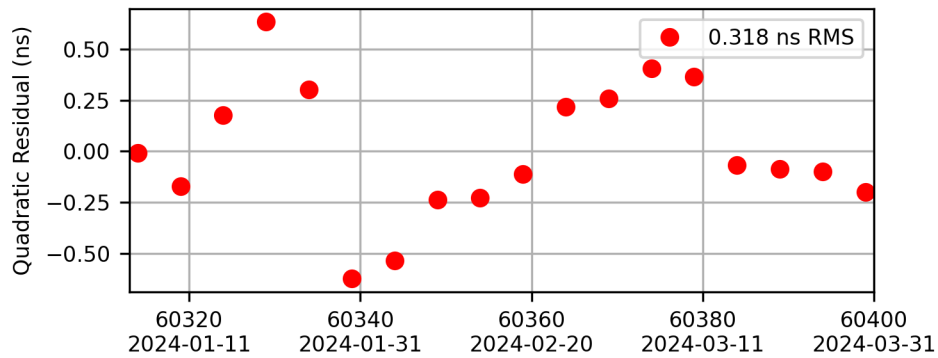
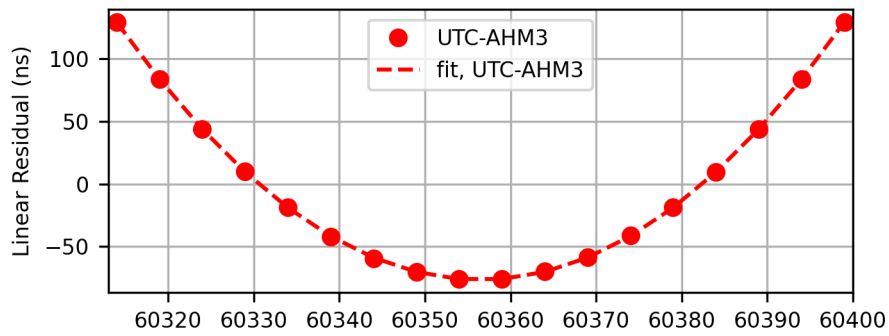
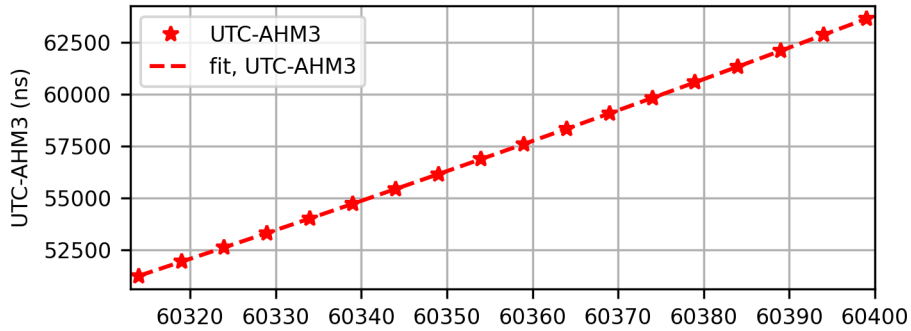


### AHM2 Rate and Drift

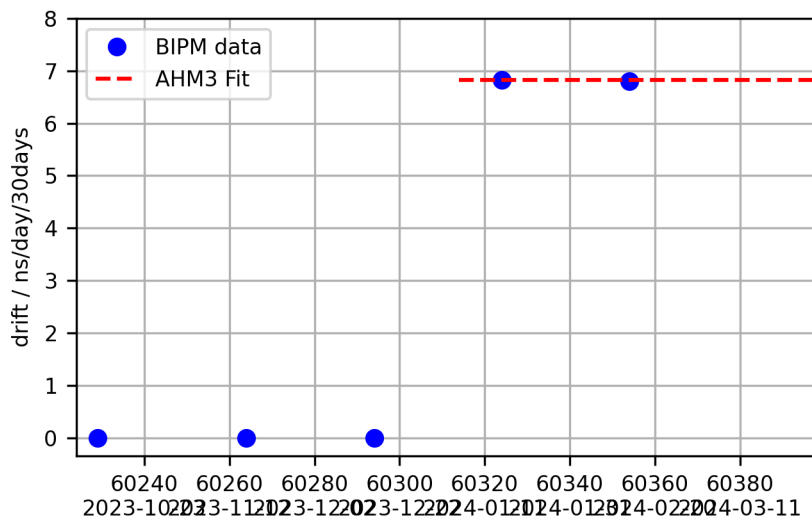
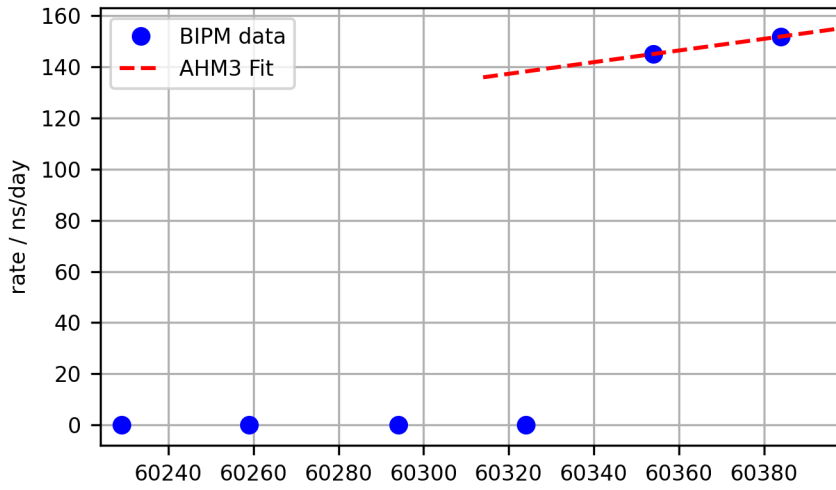


## UTC - AHM3 Fit

UTC-AHM3 (2024-04-15 / 60415)  
 $x \text{ (ns)} = 63622.397 + 155.129 *d + 0.1138 *d*d$   
 $y = -1.79548e-12 + -2.63418e-15 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 60399$

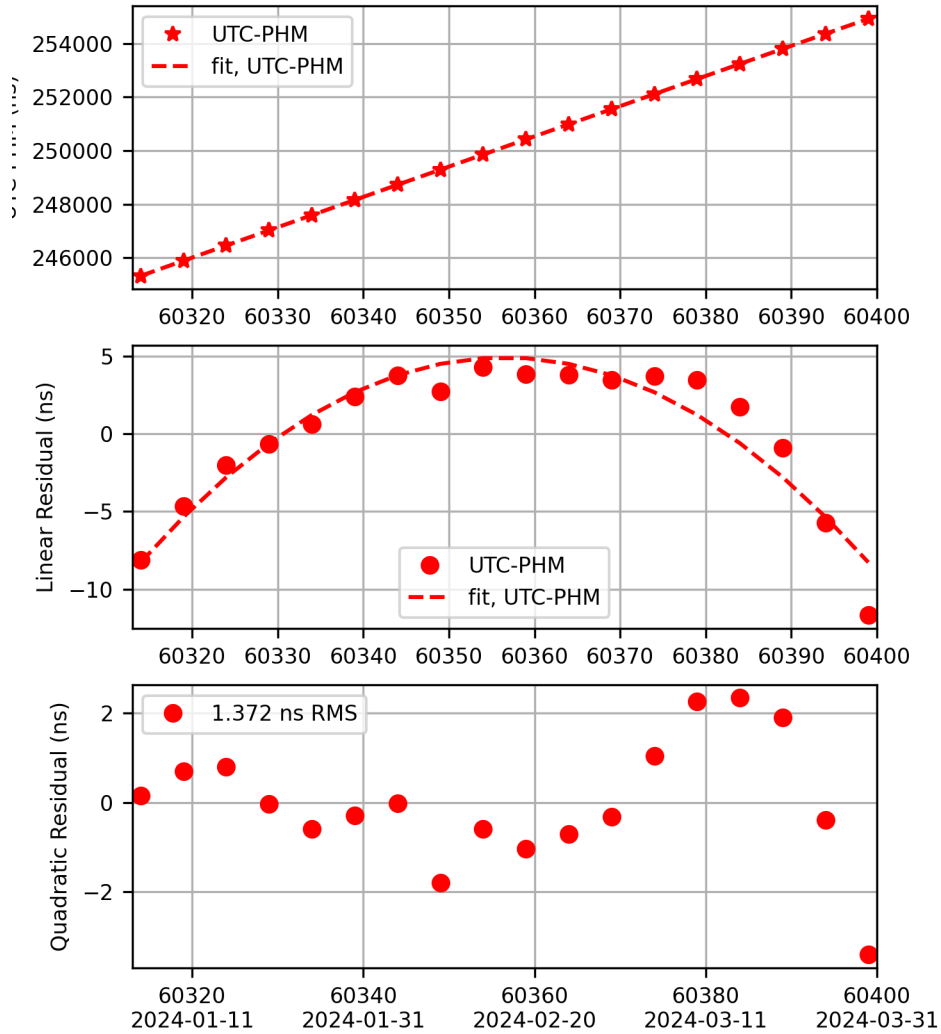


### AHM3 Rate and Drift

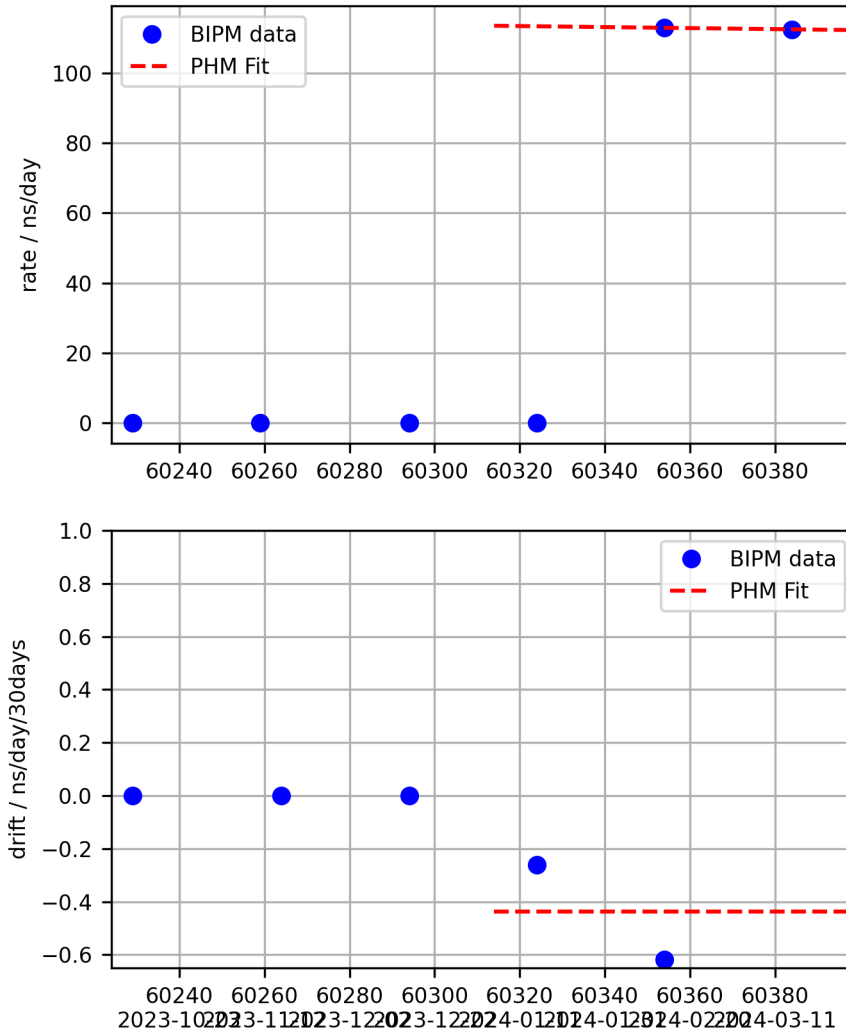


## UTC - PHM Fit

UTC-PHM (2024-04-15 / 60415)  
 $x \text{ (ns)} = 254919.410 + 112.248 *d + -0.0073 *d*d$   
 $y = -1.29916e-12 + 1.68899e-16 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 60399$



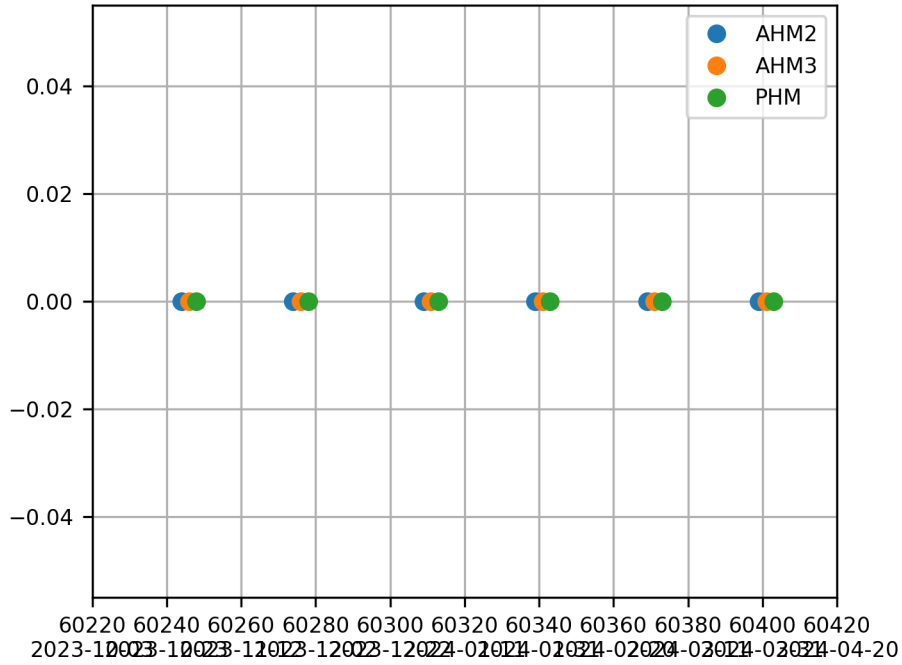
## PHM Rate and Drift





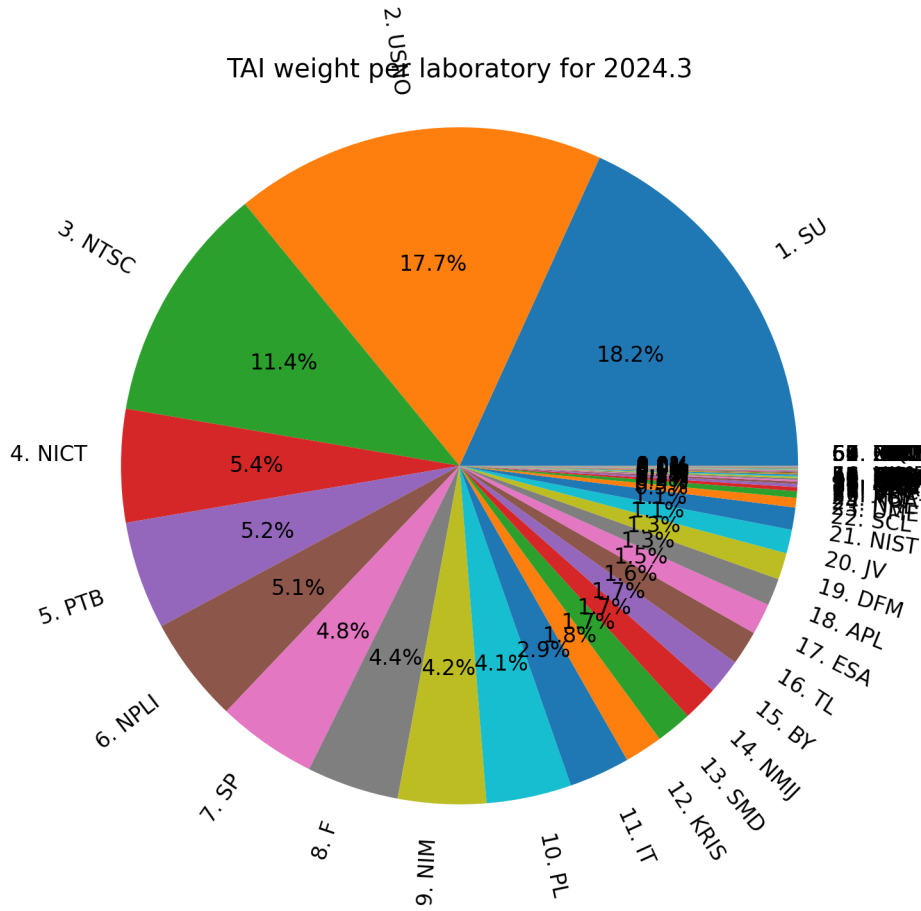
### VTT MIKES Clock Weights

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



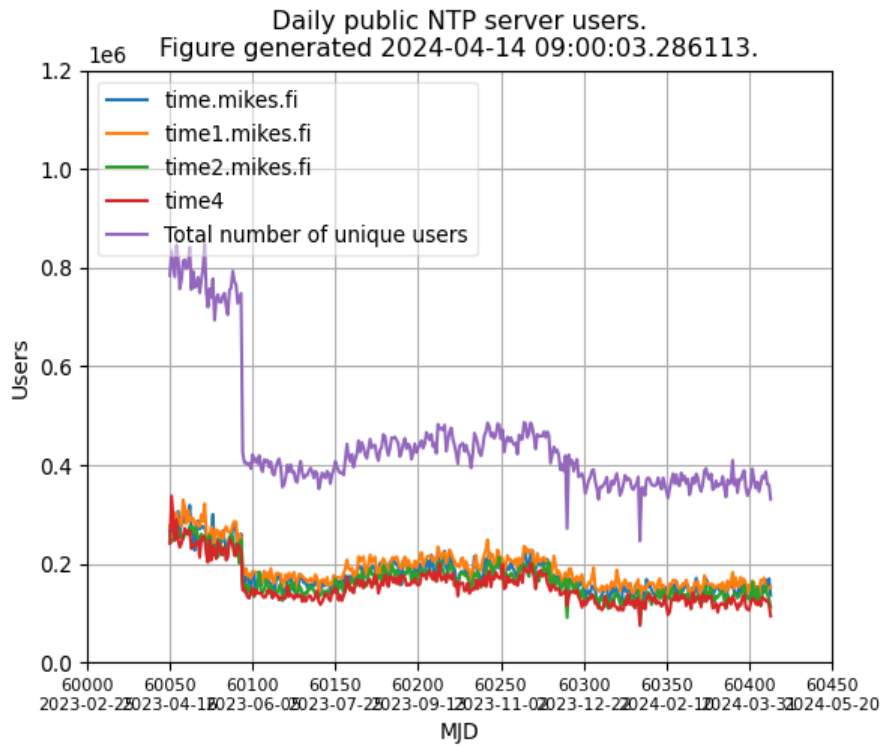
# Clock Weights per Laboratory

Relative TAI Weight per laboratory



## NTP Usage Statistics

Number of unique IPv4 addresses using our public NTP-servers.



**End of Bulletin.**