## Astronomy Talk 29th February 2020

## **Calendars, Cultures and Clocks**

This talk was given by the chairman, James Fradgley. It was a brief history of calendric development, including astronomical and political factors, with odds and ends from many cultures.

We first looked at the origin of hours, including the Greeks, Celts, Germans, Egyptians and Romans, and how the length was standardised.

Then we considered months, with cultural beliefs, e.g. madness, and the various other influences of the Moon including biorhythms. How this can be reconciled with the year length was a nightmare. Various ideas for luni-solar calendars include the Octaeteris and the Metonic cycle. Various cultures had variants on the annual cycle, and the methods of the Macedonians, the Egyptians and Christians were examined.

The Roman Calendar was a large part of the talk, looking at history and how the months got their lengths, at Terminalia, at intercalation, at naming of days of the month, the names of months and finally at Eudoxus and the Julian calendar.

Briefly the calendars of some other cultures were looked at, including the Olmecs, the Chinese, the Iranian Jalali calendar, the Hindus, The Jews and the modern Islamic calendar.

Nearer to home the story of the Gregorian calendar was covered, looking at quarter days and why our tax year starts on April 6<sup>th</sup>. The origin of our names of the days of the week was covered.

Year numbering or chronography was discussed, with the Roman AUC, the Greek Olympiads, the designations AD and BC, and variants thereof.

Finally, the subjects of leap seconds and the Julian date were covered.