Prof. Wolf, on Solar Spots.

Leucothea.

Mean Solar Time of Observation.  Apparent R.A.  Apparent N.P.D.
1858, Dec. 2  11 25 7'4  4 11 9'10  57 38 14'09

Laelitia.

Mean Solar Time of Observation.  Apparent R.A.  Apparent N.P.D.
1858, Dec. 2  7 7 19'3  23 52 38'58  99 39 22'16

Ariadne.

Mean Solar Time of Observation.  Apparent R.A.  Apparent N.P.D.
1858, Dec. 2  10 14 13'2  3 0 3'23  70 13 39'21

Note.—The above observations of Thetis and Leucothea are published on account of their near agreement with the Ephemerides of Schönfeld and Schubert respectively, but from the continued unfavourable state of the sky, no other observations could be secured at Greenwich to compare with them.

Extract of a Letter from Prof. R. Wolf, of Zurich, to Mr. Carrington, dated Jan. 12, 1859.

(Translation.)

"In my eighth communication on the subject of the solar spots now ready for the press, I intend partly to give in detail my observations during the year 1858, and partly to continue the researches commenced in the seventh number. I shall accordingly show, by employing, on the one hand, my own observations in the year 1849 to 1858; and on the other, extracts from the observations of Schwabe in the years 1826 to 1848, that the formula

\[
M = 50'31 + 3'73 \left\{ 1'68 \sin 585^\circ 26 t + 1'00 \sin 360^\circ t + \right. \\
\left. 12'53 \sin 30^\circ 35 t + 1'12 \sin 12^\circ 22 t \right\}
\]

in which \( t \) denotes the number of years elapsed since a period of mean spot-frequency, gives a curve very similar to the sun-spot-curve; and therefore is very fit to be taken as the foundation of the more detailed research which I have now in hand. Now, as the coefficients of the four sines are the values which the fraction \( \frac{m}{r} \) assumes, when for \( m \) and \( r \) are successively substituted the masses and mean distances of Venus, Earth, Jupiter, and Saturn; and the angles of the four sines are the values of \( \frac{360^\circ}{t} \), when for \( t \) are substituted the periodic times of the same planets, the conclusion seems to be inevitable, that my