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Report of the Meeting of the Society held on Tuesday, 31st March 1914.

THE Ordinary Monthly Meeting of the Society was held on Tuesday, the 31st March 1914, in the Imperial Secretariat (Treasury Buildings), at 5-30 P.M. The President, the Hon'ble Mr. W. A. Lee, F.R.M.S., was in the chair.

The minutes of the previous meeting held on Tuesday, the 24th February 1914, were read and confirmed.

The following presents received since the date of the last meeting were announced, and the thanks of the members were accorded to the donors :—

1. Monthly Notices of the Royal Astronomical Society, Vol. LXXIV, No. 3.
2. The South African Journal of Science, Vol. X, Nos. 3 and 4.
3. Journal of the Astronomical Society of Canada, Vol. VII, No. 6.

4. Annales DeL'Observatoire, Royal De Bilgique, 1913.
5. Journal of the British Astronomical Association, Vol. XXIV, No. 4.
6. Sociedad Astronomica De Barcelona, Vol. IV, Nos. 37 and 38.
7. Monthly Weather Review for October 1913, published by the Meteorological Department of the Government of India.
8. Kodaikanal Observatory—Bulletin No. XXXVI.
9. Memoirs of the British Astronomical Association, Vol. XXIV, Part IV.

The election by the Council at their meeting of the 17th March 1914 of Mr. R. S. Lister, Ghum, as a member of the Society, was confirmed.

President.—The next item is a paper by Mr. A. B. Chatwood on "An approximate method of computing precession in certain cases." I am afraid this is hardly a paper to be read in detail at the meeting as it is mostly composed of mathematical formulæ and tables of figures. The purport of this paper is a convenient method of computing precession for the purpose of correcting the places of stars in photographs of 2° square, such as are taken for the Great Star Map on which Mr. Chatwood gave us such an interesting lecture. It will be published in the Society's Journal and members will then have an opportunity of studying it.

President.—The next item is a paper by Mr. Raman on "Saturn in a small telescope." (*Paper.*)

President.—I am sure we are very much indebted to Mr. Raman for his demonstration that the visibility of a dark gap like Cassini's division is not exactly the same as visibility of a separation between two points of light. For the separation of two points of light, such as a double star, a rough rule is to divide $4\frac{1}{2}$ in. by the aperture in inches, so for Mr. Raman's telescope $1\frac{1}{2}$ in. is about the limit of separability. This is not a question of sight but of what a telescope of a given size can do. Mr. Raman has explained that a dark gap between bands of light is not exactly the same thing as a space between points of light, and that therefore you may see a dark gap between bands of light, even when it is narrower than the limit of visibility of a space between points of light. You will not see it as an absolutely black strip, but as a difference of illumination, a darker line.

President.—Would any member like to make any remarks on Mr. Raman's paper ?

President.—The next item is a paper by Revd. Mr. Ridsdale on "Some mathematical calculations of the dimensions, weight, etc., of the Earth, Moon and Sun," which Mr. Ridsdale has asked me to read for him in his absence. This is only the first part of the paper. (*Paper.*)

At another meeting Mr. Ridsdale will give us the second part of his paper and will explain the application of the formulæ that he has given you this evening.

There was no discussion on this paper.

An approximate method of computing precession in certain cases.

By A. B. Chatwood, B.Sc., F.R.A.S., A.M.I.C.E.

The present paper suggests that when rectangular co-ordinates are used instead of right ascension and declination, the computation of precession can in many cases be much simplified. The method suggested can only be used within certain limits which depend on the declination, on the interval between the two epochs, on the area considered, and on the accuracy required.

If we assume that the rate of change of precession is, within the limited area, under consideration—taken in this paper as a square of 130′ × 130′, corresponding to the plates of the astrographic catalogue—a linear function of the coordinates, we may then write as the annual precession in R.A. for any star.

$$Px + n\ (\propto \cos A \tan D + \delta \sin A \sec^2 D).$$

Where Px is the precession of the plate centre

A.D the R.A and decl. of the plate centre

$\propto \delta$ the angular distances in R.A, and decl. of any star from the plate centre expressed in circular measure.

Since $\propto \delta$ can be expressed in rectangular coordinates of x y, with the plate centre as origin and A.D are constant