

3) Referred to my previous paper, together with the consideration of the articles 1 and 2 just quoted, the new hypothesis on which this paper is grounded seems to be more natural than the old one.

4) z is changing very slowly specially in its phase. The existence of a long period of 60 or 75 years for the variation of the annual term, which was detected by Dr. Chandler, I think, would have had a close relation with the variability of z .

5) As we have seen on Diagram II, the amplitude of this term is nearly the same for the northern and southern stations. Only this fact is not sufficient to determine what function of latitude it may be, unless we will have other independent determinations of z at a far higher latitude, for the numerical values of $\cos \varphi$ for both international latitudes are sensibly the same.

The exact analysis of such a complicated motion like that of the latitude variation shall be a difficult object, unless we will obtain a systematic and continuous series of good observations extending over nearly a century. Yet at occasion of the general assembly of the International Geodetic Association in the coming autumn, I like to publish this paper which might serve as a clew for the future investigation in this direction.

Proposal for the International Geodetic Association.

A new fact to which I desire to direct the attention of anybody is that there would seem to exist some systematic differences of annual period of latitude variation depending upon the longitude, between the results of northern and southern international stations. This fact was first detected by Prof. Albrecht, and was announced by him in A. N. 4287. The numerical details are given in the table below.

Mizusawa, International Latitude Observatory, 1909 April 28.

Hisashi Kimura.

Micrometer Observations of Comet 1908 c (Morehouse).

1908	Centr. Stand. T.	$\Delta\alpha$	$\Delta\delta$	Cp.	α app.	δ app.	Red. ad l. app.	*
Sept. 4	12 ^h 20 ^m 41 ^s	+3 ^m 25 ^s 28	+2' 25".1	8,4	3 ^h 14 ^m 51 ^s 05	+68° 1' 10".7	+3 ^s 19 — 8".4	1
6	10 34 59	—2 14.60	+1.15.6	12,4	3 6 40.95	+69 8 18.2	+3.48 — 8.1	2
15	8 50 12	—2 12.17	—0 34.8	12,4	1 56 30.34	+74 25 12.4	+5.68 — 1.1	3

Comparison stars for 1908.0.

*	α 1908.0	δ 1908.0	Authority
1	3 ^h 11 ^m 22 ^s 58	+67° 58' 54".0	AG Chri 567
2	3 8 52.07	+69 7 10.7	" 559
3	1 58 36.83	+74 25 48.3	AG Do (BD +74° 95)

Yerkes Observatory, 1909 May 1.

E. E. Barnard.

Bogenförmige Protuberanzen im August 1908.

Von Wilhelm Krebs.

Herr Prof. A. Riccò (Catania) hatte die Güte, mir ein Verzeichnis der von ihm auf dem R. Osservatorio di Catania im August 1908 photographisch und visuell festgestellten Protuberanzen von Ringform brieflich mitzuteilen. Ich lasse eine Übersicht dieser Beobachtungen folgen:

Table VIII.

	1906	1907	1908	Mean	Calc.
0.0	—	+0".013	—0".043	—0".015	—0".028
0.1	—	0.000	—0.069	—0.035	—0.044
0.2	—	—0.015	—0.086	—0.050	—0.048
0.3	—	—0.026	—0.065	—0.046	—0.037
0.4	—	—0.035	—0.010	—0.023	—0.016
0.5	+0".034	—0.017	—	+0.009	+0.006
0.6	+0.050	+0.015	—	+0.033	+0.022
0.7	+0.035	+0.027	—	+0.031	+0.026
0.8	+0.005	—0.012	—	—0.004	+0.015
0.9	—0.003	—0.024	—	—0.013	—0.006

The calculated values in the last column are deduced from the formula

South — North = +0".011 sin \odot — 0".035 cos \odot — 0".011
whose coefficients have been found from the mean value by the method of least squares. In order to decide whether it arose from some casual systematic errors of observations or from some real but still unknown cause, the further continuance of the simultaneous observations at the both belts already existing must be necessarily done. Thus I desire heartily for the Geodetic Association to retain the two south stations which are so favorably situated just opposite in their longitudes as the international ones, provided, of course, that the north stations will exist still long time afterwards. Here it ought to be remembered that a single station is quite defective for the purpose from the following reasons: firstly, the determination of the annual term independent from z is absolutely impossible, while the nature of the latter is still imperfectly known; secondly, the impossibility of the determination of southern z independent from the northern belt; thirdly, the influence of the local disturbances becomes pretty considerable in the results.