

said, The time which elapses between the moment in which the planetary secondary star is nearest to the Earth, and that in which it is most distant from it, is always longer when the star passes from the point of greatest proximity to that of greatest elongation, than in the converse, when it returns from the point of greatest elongation to that of greatest proximity.

Page 213, line 1.

In the French translation of the astronomical volume of the *Cosmos*, which to my great gratification, M. H. Faye has again undertaken, this learned astronomer has much enriched the section upon double stars. I had myself neglected to make use of the important treatises of M. Yvon Villarceau, which were read at the Institute in the course of the year 1849. (See *Connaissance des Temps pour l'an 1832*, p. 3-128.) I quote here from the table by M. Faye, of the orbital elements of eight double stars, the first four stars, which he considers to be the most certainly determined:

Elements of the Orbits of Double Stars.

Name and Magnitude.	Semi-major axis.	Eccentricity.	Period of revolution in Years.	Name of the Calculator.
ξ Ursæ Majoris, (4th and 5th Mag.)	3".857	0.4164	58.262	Savary.....1830.
	3".278	0.3777	60.720	J. Herschel..1849.
	2".295	0.4037	61.300	Mädler.....1847.
	2".439	0.4315	61.576	Y. Villarceau 1849.
ρ Ophiuchi, (4th and 6th Mag.)	4".328	0.4300	73.862	Encke.....1832.
	4".966	0.4445	92.338	Y. Villarceau 1849.
	4".800	0.4781	92.000	Mädler.....1849.
ζ Herculis, (3d and 6.5th Mag.)	1".208	0.4320	30.220	Mädler.....1847.
	1".254	0.4482	36.357	Y. Villarceau 1847.
η Coronæ, (5.5th and 6th Mag.)	0".902	0.2891	42.500	Mädler.....1847.
	1".012	0.4744	42.501	Y. Villarceau 1847.
	1".111	0.4695	66.257	The same, 2d result.

The problem of the period of revolution of η Coronæ admits of two solutions: of 42.5 and 66.3 years; but the late observations of Otto Struve give the preference to the second. M. Yvon Villarceau finds the *semi-major axis*, *eccentricity*, and *periods of revolution* in years.

γ Virginis	3".446	0.8699	153.787
ζ Cancri	0".934	0.3662	58.590
α Centauri	12".128	0.7187	78.486

The occultation of one *fixed star* by another, as was presented by ζ Herculis, I have called apparent (p. 287). M. Faye shows that it is a consequence of the spurious diameter of the stars (*Cosmos*, vol. iii., p. 66 and 170) seen in our telescopes. The parallax of 1830, Groombridge, which I gave (p. 27) as 0".226, is found by Schlüter and Wichmann, 0".182, and by Otto Struve, 0".034.