+0°014 e quasi nullo in δ , confermando il valore sopra citato. Anche dalla presente misura della coppia si deve quindi concludere che le due componenti hanno moto proprio comune.

12431 C. Espin 110.

23^h 29^m 2 +48° 49'.

A e B. 9^m 7, 11^m 8.

1911.572	38°0	4 ^h 67
.654	42.8	5.26
.660	43.4	5.03
.665	42.1	4.77
1911.638	41.6	4.93

A e C. 9^m 7, 11^m 6.

1911.572	334°8	16 ^h 70
.654	333.0	16.64
.660	334.4	16.52
.665	333.9	17.05
1911.638	334.0	16.73

12459 C. Hn 58.

23^h 32^m 3 +53° 30'. 8^m 8, 12^m 0.

1911.671	356°1	3 ^h 74
.901	358.8	3.14
.906	351.6	3.39
.975	352.3	3.51
1911.863	354.7	3.45

12523₁ (aggiunta a β GC).

23^h 38^m 0 +48° 39'. 8^m 3, 11^m 8.

1911.572	321°0	34 ^h 28
.654	321.5	33.61
.660	321.7	33.75
.671	320.3	33.94
1911.639	321.1	33.89

12661. O Σ 513.

23^h 53^m 8 +34° 31'. 8^m 0, 10^m 1.

1910.917	18°8	3 ^h 57
1911.022	17.9	3.00
.024	17.8	3.35
1910.988	18.2	3.31

Roma, R. Osservatorio al Collegio Romano, Febbraio 1912.

Giorgio Abetti.

The Red Star BD +37°3876 = WX Cygni. By E. E. Barnard.

On October 5, 1903, a message was received here announcing the probable discovery of a new star by Dr. Max Wolf. The object (WX Cygni) subsequently proved to be BD +37°3876 of the 9.5 mag. It was observed and measured on the above date, and I have recently repeated the measures. In the enclosed diagram

- star 1 = AG Lu 9237
= BD +37°3875
star 3 = WX Cygni
= BD +37°3876

On Dr. Wolf's plate this star (No. 3) was surrounded by a distinct penumbra. In the 40 inch telescope the star was very red and of about the 10¹/₂ mag. At the present observations, with a magnifying power of 700 diameters, its out of focus image had a very ill defined crimson center. July 2, 1911 rough focal measures were made of WX Cygni and star 1; these gave:

WX Cygni 6.1 (2) mm
Star 1 5.1 (2) mm.

The difference is too small to mean anything in these measures. It merely indicates that if any difference existed in the foci of these stars, it must be small. In contrast with 3, star 1 is almost bluish-white in color.

On Oct. 5, 1903, star 3 was measured with respect to star 1

$$\Delta\alpha \cos \delta = +74''.99 (4); \Delta\alpha = +0^m 6^s 27$$

$$\Delta\delta = -0' 13''.72 (4).$$

This gave for star 3

$$1903.0 \quad 20^h 14^m 57^s 02 \quad +37^\circ 8' 47''.4 \quad (I)$$

Prof. Howe in A. J. 548 p. 190 has shown that the catalogue declination of AG Lu 9237 is 1' too great. I have corrected for this error.

On 1911 Aug. 15 star 3 was compared with AG Lu 9203

$$\Delta\alpha = +1^m 32^s 92 \quad (4 \text{ transits})$$

$$\Delta\delta = +1' 25''.0 \quad (2)$$

which gives

$$1911.0 \quad \alpha = 20^h 15^m 14^s 65 \quad \delta = +37^\circ 10' 15''.3 \quad (II)$$

$$1911.0 \quad 20 \ 15 \ 14.87 \quad +37 \ 10 \ 16.8 \quad (I)$$

These two positions are not in very good accord.

Following are the measures of the star with respect to several stars near it.

Star 3 and star 1.

		P.A.	Dist.	Mag.	Mag.
1903 Oct.	5	280°22	76''.11	10 ¹ / ₂	
1911 June	27	279.88	75.43		
July	2	279.72	76.13		
Aug.	15	279.86	76.05		9
		279.82	75.87		9

Star 3 and star 2.

1903 Oct.	5	206.52	66.17		12.8
1911 July	2	207.00	66.13		14
Sept.	1	207.16	65.97		14.5
		207.08	66.05		14.2

Star 3 and star 4.

1903 Oct.	5	30.11	49.19		13
1911 June	27	30.03	49.72		13
July	2	29.86	—		14
Aug.	15	30.25	49.68		14
Sept.	1	29.81	49.67		14
		29.99	49.69		13.8

Notes.

There is a star (not measured) in P.A. 255°±, Dist. 2¹/₂'± which we will call A.

1903 Oct. 5. Star 3 is 0^m 5 brighter than A.

1903 Oct. 27. About same brightness as A but the great difference in color makes it uncertain. 3 is intensely red.

1911 June 27. Only slightly reddish. Nothing peculiar in its out of focus image.

1911 July 2. It was singularly free from any glow. About 0^m.5 less than star 1.

Yerkes Observatory, 1912 Febr. 27.

1911 Aug. 15. Very deep red. About 0^m.7 less than star 1.

I send these measures and notes in the hope that they may some time be useful.

E. E. Barnard.

Beobachtungen von Planeten

angestellt am 12-zölligen Kressmann-Refraktor der Königstuhl-Sternwarte.

1912	M. Z. Kgst.	$\Delta\alpha$	$\Delta\delta$	Vgl.	α app.	$\log p\Delta$	δ app.	$\log p\Delta$	Red. ad l. app.	*
66 Maja.										
Febr. 16	12 ^h 57 ^m 3 ^s	+0 ^m 26 ^s .76	+1' 52".2	10, 10	7 ^h 31 ^m 27 ^s .26	9.494	+26° 6' 16".8	0.628	+1 ^s .37 +6".1	1
69 Hesperia.										
Jan. 20	11 4 0	-1 42.23	+0 12.0	8, 8	6 49 33.99	8.236	+9 25 31.9	0.750	+1.10 +4.9	2
144 Vibilia.										
Febr. 11	9 30 36	-1 21.68	+1 22.1	6, 6	7 50 6.09	9.023 _n	+26 21 47.6	0.543	+1.46 +4.9	3
16	13 33 22	+2 5.33	+0 9.0	6, 6	7 46 32.23	9.530	+26 29 19.9	0.642	+1.43 +5.6	4
149 Medusa.										
Febr. 16	12 21 39	-0 55.28	+5 11.9	6, 6	8 14 51.95	9.269	+19 6 15.9	0.664	+1.42 +2.7	5
162 Laurentia.										
Febr. 9	9 7 17	+2 23.99	-1 54.9	8, 8	8 2 27.66	9.276 _n	+30 20 15.0	0.494	+1.57 +4.9	6
11	8 21 46	+0 54.46	-1 15.2	6, 6	8 0 58.13	9.398 _n	+30 20 54.8	0.524	+1.57 +5.0	6
210 Isabella.										
Febr. 16	8 32 7	+2 18.10	-9 12.3	6, 6	7 27 26.40	9.143 _n	+29 51 40.4	0.485	+1.41 +7.2	7
240 Vanadis.										
Febr. 16	10 16 30	+0 47.23	-1 38.2	6, 6	8 35 36.73	8.816 _n	+19 49 30.1	0.637	+1.49 +1.9	8
259 Aletheia.										
Jan. 20	9 18 8	-1 23.55	-3 30.0	8, 8	6 27 53.63	9.136 _n	+27 3 28.5	0.538	+1.17 +7.7	9
337 Devosa.										
Febr. 3	9 39 45	-2 29.88	+0 40.8	10, 10	8 28 8.90	9.338 _n	+30 20 3.5	0.507	+1.62 +2.6	10
375 Ursula.										
Febr. 17	8 16 9	+1 47.79	-3 27.8	6, 6	7 54 10.38	9.333 _n	+33 7 19.7	0.448	+1.59 +6.5	11
444 Gyptis.										
Febr. 7	11 27 55	+1 41.95	-2 4.5	6, 6	9 14 21.42	8.823 _n	+3 0 43.8	0.802	+1.28 -0.3	12
498 Tokio.										
Jan. 19	9 16 52	-1 3.63	+1 51.2	16, 8	6 9 28.42	9.043 _n	+24 11 20.5	0.579	+1.08 +7.7	13
20	7 25 42	-1 46.27	+4 22.5	8, 8	6 8 45.78	9.448 _n	+24 13 51.9	0.635	+1.08 +7.8	13
511 Davida.										
Febr. 7	7 31 27	-1 8.04	+2 49.4	20, 10	4 20 34.19	8.465	+14 4 7.0	0.704	+0.36 +6.1	14
17	7 3 56	+1 5.06	+1 30.4	20, 10	4 26 42.54	8.594	+15 31 42.8	0.688	+0.24 +6.4	15
28	9 17 53	-1 44.77	-3 43.1	20, 10	4 36 9.03	9.472	+17 5 3.4	0.718	+0.14 +6.8	16
579 [1905 SD].										
Febr. 9	8 34 44	-0 55.13	+3 0.4	6, 6	7 51 30.88	9.356 _n	+30 45 14.1	0.504	+1.56 +5.4	17
11	8 1 18	+2 5.88	-3 5.8	6, 6	7 50 1.12	9.425 _n	+30 50 51.7	0.525	+1.54 +5.8	18
16	14 11 6	-1 25.66	+6 19.1	10, 10	7 46 29.57	9.595	+31 0 17.0	0.634	+1.53 +6.2	18