

OBSERVATION EQUATIONS FOR σ GEMINORUM. $\omega = 270^\circ$.

Weight		x	y	z	u	$-n$
1	2.0	1.000	-.980	-.391	+.201	-.02 = 0
2	1.5	1.000	-.761	-.987	+.648	-.1.61
3	1.5	1.000	-.134	-.782	+.901	+.1.49
4	1.5	1.000	-.106	-.211	+.994	+.4.67
5	1.0	1.000	+.127	+.252	+.932	-.2.18
6	2.0	1.000	+.606	+.961	+.795	-.2.11
7	1.5	1.000	+.850	+.896	+.527	-.3.27
8	1.5	1.000	+.997	+.163	+.082	+.25
9	2.5	1.000	+.965	-.504	-.261	+.43
10	2.0	1.000	+.843	-.907	-.538	+.49
11	1.5	1.000	+.602	-.961	-.799	-.1.85
12	1.5	1.000	+.335	-.631	-.942	+.1.28
13	1.0	1.000	-.099	+.196	-.995	-.65
14	1.5	1.000	-.433	+.781	-.901	+.25
15	1.5	1.000	-.612	+.985	-.767	+.07
16	2.5	1.000	-.941	+.626	-.332	+.30

whence the normal equations,

$$\begin{aligned}
 26.500x + 1.633y - 1.041z - .955u - 2.450 &= 0 \\
 14.004y - 1.864z - .519u - 6.492 &= 0 \\
 13.570z + .467u - 9.007 &= 0 \\
 12.486u - 1.145 &= 0
 \end{aligned}$$

The solution of these gave as corrections,

$$\begin{aligned}
 \delta\gamma &= +.09 \text{ km.} \\
 \delta K &= +.56 \text{ km.} \\
 \delta e &= +.022 \\
 \delta\omega &= +0^\circ.17
 \end{aligned}$$

and a value of Σprv for the normal places of $70^\circ.5$.