

REPORT ON THE COMPILATION OF THE PFKSZ-2 CATALOGUE

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The recompilation of PFKSZ (Zverev and Polozhentsev, 1958) catalogue is undertaken in connection with a number of new observations of FKSZ stars which are now available.

This work is being carried out at Pulkovo and Golossejevo Observatories. In addition to the catalogues included in PFKSZ (designated PFKSZ-1 in Table I) it is planned to use 3 more groups of catalogues. Table I gives the data for all groups.

TABLE I
Groups of catalogues to be used in compilation of the PFKSZ-2 catalogue

Group	Mean epoch	Number of catalogues		Number of observations of 1 star		$\epsilon_{\alpha} \cos \delta$	ϵ_{δ}
		α	δ	α	δ		
PFKSZ-1	1949	8	8	29	37	$\pm 0^{\circ}020$	$\pm 0^{\circ}.49$
KSZ	1959	3	3	11	9	0.030	0.49
AGK3R	1960	12	12	30	30	0.017	0.38
FKSZ-2	1961	7	5	43	27	0.024	0.42
Total (PFKSZ-2)	1957	30	28	113	103	0.025	0.44

In this table PFKSZ-1 combines catalogues used in the compilation of PFKSZ, KSZ consists of catalogues of FKZ stars observed in narrow zones at 7 observatories (FKSZ are included). The FKSZ-2 group contains the FKSZ catalogues completed after publication of the FKSZ.

A comparison of the catalogues with PFKSZ is now being made. The Brosche (1966) method is used. 10 catalogues in R.A. and 9 catalogues in Declination have been compared. It is supposed that PFKSZ-2 will be characterized by the following mean errors:

$$\epsilon_{\alpha} \cos \delta = \pm 0^{\circ}002, \quad \epsilon_{\delta} = \pm 0^{\circ}.04.$$

The PFKSZ-2 proper motion system will be derived from the catalogues at 3 epochs:

1957 – PFKSZ-2

1930 – AGK2, AGK2A and Yale

1900 – GC and others .

The compilation of PFKSZ-2 can be rationally considered as the first step towards including FKSZ stars into the FK5. Consultation with the Astronomisches Rechen-Institut at Heidelberg in connection with this work is very desirable.

References

Brosche, P.: 1966, *Veröff. Astron. Rechen-Inst. Heidelberg*, Nr. 17.

Zverev, M. S. and Polózhentsev, D. D.: 1958, *Trudy Glav. Astron. Obs. Pulkovo* 72, 5.