not completely observed and we cannot obtain any
evidence whether the numbers will decrease again.
The position of these stars in our diagrams indicates
that their absolute visual magnitude is about + 1.5.
This certainly is the correct value.
In neither cloud do F and G giants occur, and the
numbers representing these types are therefore rather
small. Even in the Mount Wilson diagram, in which
the numbers of giant stars must be enormously
exaggerated, the F and G giants are relatively scarce 1).

Comparing the general shape of our curves with
those obtained by HESS 2) and VAN RHUIJN 3) for the
stars in the neighbourhood of the sun, we see that
the different curves have the same general characteristics.
The apparent larger slope to the right in our
diagram is caused by the fact that the photographic
scale has been used. Therefore it seems probable that
the general distribution of stars in the Milky Way
clouds at least is the same as for the stars near the
sun.

The absolute luminosity curve.

SHAPLEY 4) has suggested, that globular clusters

1) E. P. HUBBLE. Carnegie Inst. Year Book, No. 20, page
270, 1921.
2) I. c.
3) I. c.

might ultimately develop into Milky Way clouds.
The HESS diagrams derived here seem not to support
this view. On the other hand the apparent luminosity
curves have a striking resemblance to those of the
globular clusters. In the luminosity curve of the
globular clusters occurs a secondary maximum about
1 magnitude and a minimum 2 magnitudes fainter than
the absolute luminosity of the cluster type variables
(− 0.23).

From the absolute luminosity curves in Auriga and
Scutum it appears, that this maximum and minimum
have the absolute magnitudes +1.0 and +1.5 respecti-
vously (see figure 3). The corresponding values in the
globular clusters are +0.7 and +1.7.

Summary.
1. — A HESS diagram has been drawn for the
galactic star-clouds in Auriga and Scutum.
2. — In the Milky Way clouds the general distribu-
tion of the stars over magnitudes and spectral
types seems to be the same as for the stars in the
neighbourhood of the sun.
3. — In the absolute luminosity curves of the Auriga
and Scutum clouds a secondary maximum and min-
imum occurs which coincides with the corresponding
maximum and minimum in the curve of the globular
clusters.

The HESS diagram however is quite different.

Remark on the star Scutum B6 (α 1900 = 18°38'0.3; δ 1900 = −6°35'14' m = 12.7),

by Dr. E. A. KREIKEN.

When investigating the colours of the faint stars
in the Scutum cloud the colour of one star appeared
to be of a very remarkable character. Attention has
been drawn to this star previously 1).

The star is situated just on the edge of the field
investigated by us but was well measurable on 6
different plates. The results of the individual measures
were I = −0.84; −0.70; −0.86; −0.91;
−0.95 and −0.85.

As weighted mean the value \( I = −0.87 ± 0.05 \)
(probable error) was obtained.

SCHWARZSCHILD 2) arrived at the conclusion that
for \( I = −0.81 \) the temperature of a star becomes
infinitely high. The peculiar colour of the star may
be caused by a bright emission line of short wavelength.
If it is supposed, that when measuring this star we
pointed on this emission line, its hypothetical wave-
length would be \( \lambda = 4037 \) Ångström.

As the photographic magnitude of this star is 12.7,
it falls quite outside the ordinary colour-luminosity
diagram.

If the star is an ordinary O star it must be far
beyond the limits of the Scutum cloud. If on the
other hand it is supposed to be a planetary nebula
of very small dimensions, the star might be a white
dwarf, which would agree with the results obtained
by BECKER and GROTIAN 3).

H. KIENLE 4) remarked, that a photographic dwarf
may be a bolometric giant. The bolometric correction
for the effective temperature \( T_e \) 2000000 viz. \( \Delta m = 10.3 \)
would bring this star quite up to the main series and
more.

Boscha-Observatory.

Lembang, Java.

Febr. 1929.

1) See the preceeding paper.
2) Gött. Aktinometrie, Teil B.