One conclusion is that apparently these heavy elements exist preferentially in Cr-Eu-Sr stars. The other conclusion is that some of these elements can only be produced by r-processes. This fact is of fundamental importance for the interpretation of the Ap stars.
The complete paper wil be published elsewhere.

The variability of the Be stars.

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Abstract: Using the photometric and Be-star catalogues existing at La Plata, the photometric behavior of a sample of 140 Be stars has been studied over an average time interval of eleven years. As compared with a control sample of 100 normal B stars, about 50 % of the Be stars show variations in V and about 30 %, in B-V and U-B. These results confirm Feinstein's conclusions (Z. f. Astroph. *68*. 29 (1968)) based upon a smaller sample. The paper in full will be published elsewhere.

The Spectrum of Gamma-2 Velorum. II

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Abstract: The study of the series of spectra of Gamma-2 Velorum taken by C. D. Perrine at the Córdoba Observatory in 1919 suggests that the variations in the radial velocities and in the intensities of the absorption lines that show the effect of diluted radiation are periodic with Vainu Bappu and Ganesh's period of 78,5 days and permits to improve this figure to 78,5002 days. The same period is followed by V/R variations displayed by the emissions of H and He I.
Thus the emission features of Gamma-2 Velorum can be separated into two groups, one of the broad H and He I emissions that show V/R variations, and a second one of the relatively narrow and stronger He II, C IV, O IV, etc. lines that do not show V/R variations. One obvious conclusion is that the Wolf - Rayet spectrum does actually show H in its spectrum, the behaviour of the H lines being different than the behaviour of He II.
The examination of the spectra taken at Bosque Alegre by Sahade in the interval 1948-62 and that of the spectra taken by Perrine, suggest that no noticeable changes have occurred in the spectrum of Gamma-2 Velorum in the last fifty years. Furthermore, the V/R variations in the red part of the spectrum is also shown on the 1948-62 plates.
Identifications of the spectral features are given in the wavelength range λ 3100 - 6800 A.
Relative to H8, the distribution of the radial velocities of the absorption line of He I 3888 that show dilution effect and is violet displaced by about 1200 km/sec on the average, both on Perrine's plates as well as on those taken with the Bosque Alegre reflector, apparently follow the trend of the radial velocities of the W - R component but with a much larger amplitude. This will be checked with the measurement of the Bosque Alegre spectra and may be explained in terms of form and density distribution of the envelope that surrounds the whole system.
The paper will be published in full elsewhere.

* Miembro de la Carrera del Investigador Científico. Consejo Nacional de Investigaciones Científicas y Técnicas.

INFORME DE BECA

Estudio de la Asociación I Canis Majoris

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Abstract: In the belt ($6^h\,48^m < AR < 7^h\,12^m$, $-8° > D > -12°$) early-type stars (O, B0, B3, B5) are predominant and a group of early-type stars with slighty higher concentration than in the rest of the Milky Way is found in Canis Majoris. 15 stars were classified in the M. K. K. system: 5 are late-type main sequence stars probably in the foreground, the remaining 10 being possible members. None of the obtained spectra show emission lines. The study of proper motions of 79 stars shows a strong mean motion perpendicular to the galactic plane. A distance of 1550 pc was obtained assuming a mean absortion of 0^m3 in the whole region. The distance derived by statistical paralaxes is incompatible with the preceeding value; this fact shows the existence of appreciable systematic motions with respect to the Sun. It was not possible to improve the distance by using the galactic rotation curve.

I. *Introducción*:

Se describen en este trabajo algunas conclusiones alcanzadas en relación a un grupo de estrellas relativamente grande que Ambarsumian denomina Asociación I Canis Majoris. Varias fueron las razones que motivaron el estudio de dicha zona ($6^h\,48^m < AR < 7^h\,15^m$, $-3° > Dec > -14°$): una rápida inspección de las estrellas de la zona clasificadas en el H.D. muestra un aparente predominio de estrellas tempranas (O,B0,B3,B5) de brillo moderado; esta agrupación estelar se halla dentro y en las inmediaciones de nebulosas oscuras y difusas, típicas de las zonas en donde se están formando estrellas; en dicha región también se encuentran los cúmulos abiertos NGC 2353 y NGC 2323, quizás relacionados (núcleos), con la supuesta asociación.

La zona sobre la cual concentré preferentemente la atención es una región de extensión algo menor (AR: de $6^h\,52^m$ a $7^h\,12^m$ y Dec: de $-8°$ a $-12°$) fuera de la cual disminuye notoriamente la concentración de estrellas más tempranas que B9 inclusive y más brillantes que m ~ 9.

II. *Observaciones Espectroscópicas.*

Algunas estrellas de la zona fueron observadas con el espectrógrafo de Bosque Alegre, pero no fue posible obtener velocidades radiales confiables, ya que como muestra la Tabla I, de 10 velocidades radiales de estrellas standard medidas (y corroboradas independientemente por el Dr. L. Milone) se infieren errores muy grandes respecto de los valores asignados en Lick a esas mismas estrellas. No se aprecia un error sistemático sino variable y de muchos km/seg. De un estudio sistemático de velocidades radiales de estrellas standard realizado hace algún tiempo por Milone se infiere que el comportamiento del espectrógrafo es errático, posiblemente debido a que el haz de comparación de Fe no mantiene su colimación.