

The last case for  $\lambda = 1$ , can be treated as follows. Putting  $\lambda = 1$  in the second of equations (4), the comparison of both figures gives that vectors  $\rho \bar{S}$  and  $\rho \bar{R}_1$  are equal. But vector  $\rho \bar{R}_1$  is equipotent to vector  $\rho \bar{R}$ , and  $\bar{R}$  is a constant one. That would imply that  $\bar{S}$  is a constant vector too. This contradicts the hypothesis.

There are two another facts to be remarked:

1) On account of the results attained by Dr. Cesco the plane of the three bodies cannot rotate in the three-dimensional space, because vectors  $\bar{R}$  and  $\bar{R}_1$  are constant, and because also the barycenter is fixed (we must remember that the system of reference is an "heliocentric" one, and so, the degree of freedom of the system of differential equations has been reduced). Being fixed the plane formed by the three bodies, vectors  $\bar{P}$  and  $\bar{Q}$  must be null. From this we conclude that

$$\bar{P} = \text{const.} \quad \bar{Q} = \text{const.}, \text{ which contradicts}$$

hypothesis.

2) The second remark shows a very interesting fact. All the problem deals with central configurations. That is to say that the acceleration must be in the direction of the barycenter. But this is not the case for the mass  $m_0$  in Dr. Cesco's vectorial solution. This mass belongs to a constant vector  $\bar{R}$ , so it can only move in this direction.

That means that there is no component at all of the acceleration in the direction of the barycenter; this mass cannot have a central movement. With this proof we have completed the discussion which has shown that Dr. Cesco's solutions are not valid. Moreover as Dr. Cesco has used this results in trying to demonstrate that Wintner's afore-mentioned theorem is wrong, it is clear that in regard to this problem, Dr. Cesco's results are again untenable and therefore, Dr. Wintner's theorem holds true.

## EL CUMULO ABIERTO ALREDEDOR DE LA ESTRELLA $\eta$ CARINAE

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Las observaciones fotoeléctricas efectuadas durante el presente año (1964) de las estrellas situadas en un radio de 5' alrededor de  $\eta$  Carinae muestran que todas ellas son miembros del cúmulo abierto Trumpler 16. La estrella más brillante del grupo, HD 93250, de tipo espectral O5, se encuentra sobre la secuencia principal de edad cero. Su magnitud absoluta es entonces  $M_v = -5.5$ .

La estrella Wolf-Rayet, HD 93162 sería un miembro del cúmulo, siempre que se admita, además de la absorción interestelar de todo el grupo, una absorción adicional de  $A_v = 0^m.6$ . Con un exceso de color de  $E_{B-V} = 0^m.2$  esta estrella estaría muy cerca de HD 93250 en el diagrama color-magnitud.

Otras dos estrellas del cúmulo, CD -59°3308 y 3310, tienen también una absorción extra del orden de  $A_V = 0^m3$ .

The photoelectric observations made during the current year (1964) shows that all stars in a radius of  $5'$  around  $\eta$  Carinae are members of the open cluster Trumpler 16. The brightest star, HD 93250, of spectral type O5 is on the zero age main sequence.

One Wolf-Rayet star, HD 93162, would appear to be a member of the cluster, if we assume that besides the absorption of all the group, there is an additional absorption of  $A_V = 0^m6$ . With an extra color excess of  $E_{B-V} = 0^m2$ , this star is in the color-magnitude diagram very near HD 93250. Then, its absolute magnitude is  $M_V = -5.5$ .

Other two stars in the cluster, CD -59°3308 and 3310, may also have some additional absorption of around  $A_V = 0^m3$ .

#### ESTRELLAS PATRONES DE CLASIFICACION ESPECTRAL EN 42 A/mm. DESDE O5 HASTA F0

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Se provee una lista de estrellas patrones en el hemisferio austral clasificadas en el sistema MK en 42 A/mm. Se discuten criterios adicionales a los del Atlas de Yerkes.

El trabajo "in extenso" será publicado en el volumen correspondiente al Simposio N° 24 de la U.A.I.

A list of standards, classified at 42 A/mm in the MK system, of southern stars is provided. Additional criteria to the ones used in the Yerkes Atlas are discussed.

The paper in full will be published in the proceedings of I.A.U. Symposium N° 24.

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viene del trabajo anterior

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