

THE GROUPE EUROPÉEN D'OBSERVATIONS STELLAIRES

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Abstract

The organization and operation of the Groupe Européen d'Observations Stellaires (GEOS) is described.

The Groupe Européen d'Observations Stellaires (GEOS) was founded in 1973. It now has a membership of approximately 100 observers from Italy, France, Spain, Belgium, and Switzerland. The group collects 80,000 to 100,000 observations each year. GEOS specializes in the observation and study of variable stars which are not well known:

- Suspected variable stars
- Stars whose period and/or type are undetermined

GEOS is also interested in verifying the periods and the ephemerides of short-period, eclipsing, or pulsating variables. Most of these stars have not been observed for a long time.

Some of GEOS' observed stars have a small amplitude of variation and therefore their study always requires a statistical treatment, particularly to correct for systematic errors. GEOS never publishes unanalyzed listings of observations.

Our work is organized as follows:

- The stars of the Research Program are selected among under-observed variables whose elements are not known. The *New Catalogue of Suspected Variable Stars* (Kholopov *et al.* 1982) is often used for this selection. Several GEOS observers try to detect new variable stars among stars which seem to be not constant in the neighborhood of variables, or among red stars; many of them are variable.

- The selected stars are visually observed by several members of the group over one or two years.

- If these observations do not show a clear variation, the star is rejected.

- If there is clear variation, the star enters the Priority Program and is intensively observed by the entire group.

- When the results are visually proved (type, period, and ephemeris), the star is put in the program of a photoelectric session.

- The final results are usually published as *GEOS Circulars* or in the *Information Bulletin on Variable Stars*.

Reference

Kholopov, P.N. *et al.* 1982, *New Catalogue of Suspected Variable Stars*, Moscow.