



**5-th Gamow Memorial International Conference
dedicated to 111-th anniversary of George Gamow**

**ASTROPHYSICS AND COSMOLOGY AFTER GAMOW:
PROGRESS AND PERSPECTIVES**

and

15-th Odessa International Astronomical Gamow Conference-School

**ASTRONOMY AND BEYOND: ASTROPHYSICS,
COSMOLOGY, COSMOMICROPHYSICS, ASTROPARTICLE
PHYSICS, RADIOASTRONOMY AND ASTROBIOLOGY**



PROGRAM AND ABSTRACTS

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**RESEARCH OF THE LONG-TERM BEHAVIOUR
OF THE PLEIADES BY USING OF
PHOTOGRAPHIC PLATES FROM UkrVO AND
LVO DIGITAL ARCHIVES**

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Pleiades Star Cluster (M45) is one of the most studied star clusters in the Galaxy. At the same time as part of the Pleiades are many long-period variable stars, including flashing, that need further study. Recent work on the processing of photographic images of the Pleiades obtained in different observatories revealed a number of stars with large variations. So, you want to understand the reason of that. Collection of UkrVO unified digital archive contains a number of plates with images of the stars of the Pleiades obtained on different instruments. Processing of this material allows to test out standard programs for digital astronomical images processing. Also we will add information about variable stars and will improve the coordinates and proper motions of cluster stars. Selected material covers the period of 1909 to 1988. The plates have different margins, scale, number of stars on images and obtained limiting magnitude. Exactly this diverse set of options lets you to be sure of results.