

Brief information about the project

Name of the project	AP19175392 «Description of observational manifestations of stars with the B[e] phenomenon based on computer simulation methods»
Relevance	Interest in the study of stars with B [e] phenomenon is growing in the world scientific community, as evidenced by the large number of publications in ranking journals in Astrophysics, international conferences and symposiums. Achievements in the study of these objects are the development of modern astrophysics and science in general, with the discovery of new features of these objects, the application and discovery of new methods of data analysis, etc. In the study of objects with B[e] phenomenon there are a number of problems, which are still relevant, ranging from the definition of the physical parameters of the systems up to the classification of these objects. The main difficulty in the study of these objects is large errors in the estimation of the main parameters of the systems - mass and luminosity of the components, which are caused by inaccurate measurements of distances to the objects.
Purpose	the mission of this project is to determine the fundamental parameters of eclipsing binaries with the B[e] phenomenon based on the latest GAIA stellar distance data using the CVlab computer code
Objectives	In order to achieve the goal of the project, the following project tasks are set: 1. Create our own catalog of eclipsed binary systems with the B[e] phenomenon. 1.1 A search for eclipsed binary systems with the B[e] phenomenon in the current works on the study of binary systems. 1.2: Search of light curves in various filters of selected objects from the formed own catalog of eclipsed binary systems with B[e] phenomenon. 2. Simulation of the light curves of the studied systems using the computer code "CVlab" based on the latest GAIA distance data. 3. Conclusion about the nature of the systems under study, based on the simulated light curve.
Expected and achieved results	Indicators of the solution of these problems will be scientific publications in ranked journals in the scientific direction of the project. The results obtained in the form of their own catalog of eclipsing binary systems with the B[e] phenomenon will make a significant contribution to the study of these systems. The non-profit joint-stock company "Kazakh National University named after Al-Farabi", where the implementation of the project tasks will take place, has the necessary tools.

<p>Research team members with their identifiers (Scopus Author ID, Researcher ID, ORCID, if available) and links to relevant profiles</p>	<p>1. Khokhlov Azamat post-doctoral student h-index 1., Researcher ID Web of Science GXV-5133-2022., ORCID ID 0000-0001-6987-9058., Author ID в Scopus 57945306100 2. Ibraimov Margulan, PhD, acting professor – Scientific consultant. ResearcherID: AEP-9550-2022; ORCID: 0000-0002-8049-3911; Scopus Author ID: 57189617696.</p>
<p>List of publications with links to them</p>	<p>-</p>
<p>Patents</p>	<p>-</p>