

BOOK OF ABSTRACTS



Actual Questions of Ground-based Observational Astronomy

MAO-200

September 27-30, 2021, Mykolaiv, Ukraine

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
RESEARCH INSTITUTE “MYKOLAIV ASTRONOMICAL OBSERVATORY”

**ACTUAL QUESTIONS OF GROUND-BASED
OBSERVATIONAL ASTRONOMY**

International Conference

ABSTRACT BOOK

September 27-30, 2021,
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The Book of Abstracts contains abstracts of presentations to the International Conference “Actual Questions of Ground-based Observational Astronomy” to be held in Mykolaiv, Ukraine, on September 27-30, 2021. Methods and technical means of ground-based observations, a role of the International Virtual Observatory Alliance (IVOA) in modern research and actual problems of ground-based astronomy are presented.

**RADIAL VELOCITIES INVESTIGATIONS OF TWO
OBJECTS IN COLLINDER 394 GALACTIC OPEN
CLUSTER: HD 174403 AND BB SGR**

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We present the results of the spectroscopic observations of two remarkable objects in the open cluster Collinder 394: post-MSTO object HD 174403 that is an eclipsing binary V4088 Sgr, and Cepheid BB Sgr. More than twenty spectra of HD 174403 during June-September of 2021 and 16 ones for BB Sgr during 2019-2020 summer seasons have been obtained at the 0.81m telescope of the Three College Observatory (TCO, North Carolina, USA). These spectra were used to determine the radial velocities (for HD 174403 and BB Sgr) and effective temperature (for BB Sgr). For the HD 174403 we were able to establish for the first time the exact orbital period of eclipsing binary near 26 days. The mean effective temperature of 5677 K have been determined for the BB Sgr. Moreover, according to radial velocity measurements, BB Sgr shows an spectroscopic companion's presence.