

# 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,  
Mykolaiv, Ukraine

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Ministry of Education and Science of Ukraine  
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## **Actual Questions of Ground-based Observational Astronomy.**

International Conference. Abstract book. – Mykolaiv. 2021. – 47 p.

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.

## **METHODOLOGY AND SOFTWARE FOR SEPARATION OF GSS CLUSTER OBSERVATIONS**

*V. Kriuchkovskiy, M. Kulichenko, Ye. Kozyryev, O. Shulga*  
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The method of separation of GSS in close cluster groups by their NORAD numbers is presented. The method can be used when direct identification using (O-C) residuals is impossible. Long series of GSS observations that were obtained at the SAC telescope of the Mykolaiv observatory during 2020-2021 were used to test this method. The software for automatic separation of GSS in close cluster groups by their NORAD numbers was created to further use this data to calculate sets of orbit elements in TLE format.

## **OPTICAL AND RADIO OBSERVATIONS OF METEORS AT RI “MAO”**

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Observation of meteors using TV CCD unintensified technique was started at RI “MAO” in 2010. The method of meteor registration is based on combined observation method developed at RI “MAO”. The research was focused on faint meteors and meteoroid orbits calculation. Results of more than 10 years of the research include catalogs of single station meteor parameters (>15000 meteors) and elements of heliocentric meteoroid orbits based on low and large baseline double station observations. Colorimetric observations of meteors were also started. Results of radio meteor observations campaign are also presented.