

BOOK OF ABSTRACTS

Actual Questions of Ground-based Observational Astronomy



Mykolaiv, September 26-29, 2016

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

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

International Conference

ABSTRACT BOOK

September 26-29, 2016,
Mykolaiv, Ukraine

Organizers:

Ministry of Education and Science of Ukraine
Research Institute “Mykolaiv Astronomical Observatory”
Ukrainian Astronomical Association

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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 26-29, 2016. Methods and technical means of ground-based observations, IVOA role in modern research and actual problems of ground-based astronomy are presented.

GENERAL INFORMATION

The International Conference “Actual Questions of Ground-based Observational Astronomy” (MAO195) will be held in Research Institute “Mykolaiv Astronomical Observatory”, Mykolaiv, Ukraine on September 26-29, 2016.

The conference is organized to discuss methods and technical means of ground-based observations, IVOA role in modern research, actual problems of ground-based astronomy as well as history of astronomical research. Working languages are English, Ukrainian and Russian.

Main Topics of the Workshop:

- Methods, technical means and software for ground-based observations and data processing.
- Use of IVOA technologies for solution of modern astronomical problems.
- Results of data processing for ground-based observations.
- History of astronomical research.

Information about Participants:

- General number of registered participants – 48;
- General number of represented organizations – 22;
- Number of submitted papers – 38;
- Number of authors of submitted papers – 84.

ASTEROIDS OBSERVATIONS WITH NCSFCT'S AZT-8 TELESCOPE

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The asteroid observations of the small Solar System bodies were carried out at the telescope AZT-8 (D = 0.7 m, f/4) of the National Center of the Space Facilities Control and Test (NCSFCT), SSAU during 2010 – 2013. The telescope is located near Yevpatoria (Crimea), the observatory code according IAU is B17. The observational program was included perturbed main belt asteroids and alert observations of NEO in frame of GAIA FUN-SSO Company. The MPC database contains more than 4500 asteroids positions and magnitudes obtained during this period at AZT-8 telescope. The report presents an analysis of the positional accuracy of B17 observations obtained from the comparison from the comparison with the JPL HORIZONS ephemeris, and data from AstDyS-2 and NEODyS-2 web services.

DOUBLE STATION OBSERVATION OF FAINT METEORS IN MYKOLAIV

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Meteor research using TV CCD unintensified techniques was started in 2011 in Mykolaiv astronomical observatory (RI NAO). The method of meteor registration is based on combined observation method developed at RI NAO. The main accent of the research is made on precise astrometry and meteoroid orbits calculation. In 2013 first double station meteors with low baseline were observed. The accuracy of visible radiant estimation is 0.7° with baseline 5 km, and less 0.5° with baseline 11.8 km. The accuracy of velocity and height estimation is 0.5 km/s and 1-2 km.