BOOK OF ABSTRACTS

Actual Questions of Ground-based Observational Astronomy

MAO - 195

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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A 19 **Actual Questions of Ground-based Observational Astronomy.**
International Conference. Abstract Book. — Mykolaiv: 2016. — 40 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 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.

aiming to familiarize with the modern amateur equipment for carrying out of astronomical observations.

Thus, evident pedagogical orientation is discernible, i.e. orientation aiming to train qualified astronomy teachers as well leaders of astronomy classes of out-of-school educational institutions.

As for the professional observations they are carried out during the astronomy and astrophysics courses as well as during the special practical training on astronomy by means of the University astronomical observatory equipment, most notably Cassegrain system reflecting telescope of 702-mm and Ritchey-Chretien system reflecting telescope of 400-mm.

THE USE OF MAVO'S LARGE ASTRONOMICAL IMAGES DATABASES FOR TODAY'S TASKS SOLUTIONS

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In recent years, noticeably increased volumes of astronomical images databases, access to which is organized in the framework of MAVO. The consequence of this process, there is a more effective solution to many tasks of astrometry. For the organization of access to astronomical images of MAVO we developed software that allows to set parameters for the search and download images to local computers. Multithreaded software allows to quickly download massive amounts of images, the speed limit only on the data server side and Internet bandwidth.

To automate the processing of large volumes of images was created complex of virtual computers with the installed program Astrometrica and other necessary software. Thus, on a single physical computers, you can run multiple streams of data reduction. The process of stars identification and reduction is fully automated, which allows you to handle arrays of hundreds of thousands or even millions of image files in a fairly short period of time.