

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

Organizers:

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

Scientific Organizing Committee:

O. Shulga,	RI "MAO", Ukraine, Chairman;
Yu. Protsyuk,	RI "MAO", Ukraine, Co-Chairman;
S. Andrievsky,	RI "AO" ONU, Ukraine;
V. Bezrukovs,	VIRAC, Latvia;
V. Efimenko,	AO KNU, Ukraine;
P. Fedorov,	RI A KhNU, Ukraine;
N. Kablak,	UzhNU, Ukraine;
O. Konovalenko,	IRA NASU, Ukraine;
I. Kudzej,	VAO, Slovakia;
B. Novosyadly,	AO LNU, Ukraine;
Zh. Tang,	ShAO, China;
G. Tuccari,	NAI, Italy;
I. Vavilova,	MAO NASU, Ukraine;
L. Yankiv-Vitkovska,	LNU, Ukraine;
Ya. Yatskiv,	MAO NASU, Ukraine.

Local Organizing Committee:

Yu. Protsyuk	(Chairman)
N. Maigurova	(Secretary)
D. Bodryagin	L. Doniy
M. Kaluzhny	V. Kryuchkovsky
M. Kulichenko	V. Levashova
O. Mazhaev	I. Osadchuk

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.

FOLLOW-UP NEA OBSERVATIONS IN SHAO

A. Pomazan, Z.-H. Tang, K. Tang, Y. Yu

*Shanghai Astronomical Observatory, Chinese Academy of Science,
Shanghai, PR China,
antpomaz@shao.ac.cn*

The goal of current research project is to implement regular observations of NEAs with rotating-drift-scan CCD (RDS CCD) technique at Shanghai Astronomical Observatory (ShAO) with particular attention to fast moving and newly discovered objects and to obtain additional high precision astrometric positions for them during discovery apparition. The IAU MPC observatory code was obtained for the Lishan Observing Station (National Time Service Center of Chinese Academy of Sciences, NTSC of CAS, China) in 2019 and regular observations were started. The specific astrometric reduction software was developed to obtain topocentric astrometric positions of the objects. The part of observations was obtained around time moment of minimal distance to the Earth during current CA when apparent motion substantially exceeds diurnal motion. Follow-up observations during discovery apparition allows to extend the time intervals of the observed orbital arc for refining the orbit and reducing the orbital uncertainty, so it will be possible to recover them in next apparitions.

The astrometric results of NEAs observations, including new discovered one, are presented and analyzed. The comparative analysis of astrometric and ephemeris positions was done regarding to JPL's HORIZONS system and NEODyS-2 service. The residual differences (O-C) often show high values for newly discovered NEAs during observation date as well as big differences between ephemerid positions of mentioned services. The data for such NEAs is presented.