

**INTERNATIONAL WORKSHOP
ON
CELESTIAL MECHANICS
&
DYNAMICAL ASTRONOMY**

JANUARY 06-08, 2023

Organized by



**Department of Mathematics
Central University of Rajasthan
NH-8, Bandarsindri, Kishangarh-305817,
District-Ajmer, Rajasthan, India**

Sponsored by



**Inter-University Center for Astronomy and
Astrophysics, Pune Univ. Campus,
Ganeshkhind, Pune-411007, India**

PATRON

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Prof. Anand Bhalerao**

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COORDINATORS

Prof. Kanak Saha
IUCAA, Pune, India
Dr. Ram Kishor
Central University of Rajasthan, India

SPEAKERS

Prof. Bhola Ishwar, BRAU, Muzaffarpur, India
Prof. A. Celletti, Univ. of Rome Tor Vergata, Italy
Prof. Renu Malhotra, Univ. of Arizona, USA
Prof. Ranjan Gupta, IUCAA, Pune, India
Prof. Rashmi Bhardwaj, GGSIU, New Delhi, India
Prof. S.N. Hasan, MANUU, Hyderabad, India
Prof. Mai Bando, Kyushu University, Japan
Prof. Elbaz I. Abouelmagd, NRIAG, Egypt
Prof. Kanak Saha, IUCAA, Pune, India
Prof. Manish D. Shrimali, CURAJ, India
Dr. M. Xavier James Raj, VSSC-ISRO, India
Dr. B. S. Kushvah, IIT (ISM), Dhanbad, India
Dr. Vineet Kr Srivastava, ISRO, Bangalore, India

ABOUT COURSE

The major aim of the International Workshop on Celestial Mechanics and Dynamical Astronomy (IWCMDA) is to bring together leading academician, researchers, scientists, and research scholars to exchange their ideas and experiences under the theme of the workshop. This workshop provides a premier international interdisciplinary platform especially, for the students of UG, PG and PhD level, where they can explore not only about the basic principles and methodologies of the celestial mechanics and dynamical astronomy but also know about the most recent innovations, trends and techniques CMDA.

TOPICS TO BE COVERED

Celestial Mechanics- Different physical models and dynamical aspects, Nature of trajectories, Dynamics via invariant manifolds, Stability approaches.

Dynamical Astronomy- Introduction to planetary system, Exponents, Solar System, Basics of orbits, Lagrange point stability in the context of Milky Way galaxy, PSS, Numerical analysis.

Advancement in trends and techniques- Advances in the techniques of satellite dynamics, Recent key factors for successful launch of satellite, Major challenges and possible solutions during the launch of a satellite, Space debris and stable motion of a satellite.

WHO MAY APPLY

1. M.Sc. students with mathematics/physics/computer science and M.E/ M.Tech. in Aeronautical or Aerospace engineering.
2. Final year students of B.Sc. or B.E./B. Tech. with exceptional academic record.
3. Research scholars, Postdoc fellow & faculty members working in the area of workshop's theme.

Note- Preference would be given to UGC governed college/University/Institutes.

PREREQUISITES

A good knowledge of mathematics/ physics/ computer science is required along with adequate knowledge of linear algebra, differential equations, mechanics and programming languages.

HIGHLIGHTS

1. Eminent Speakers
2. Interaction Sessions
3. Participants presentations

DEADLINES

Registration- 10.11.2022

Confirmation (by Email)- 15.11.2022

TOTAL SEATS

Total 45 applicants will be finalized on the basis of their interest in the theme/area of this workshop.

REGISTRATION

Online free registration is compulsory at the link-
<https://forms.gle/ujNuTuU9nTWUinMq7>

ABOUT THE UNIVERSITY

The Central University of Rajasthan (CURAJ) has been established by an Act of Parliament (Act No. 25 of 2009), and it is fully funded by the Government of India. The CURAJ is located in Ajmer district of Rajasthan. University has 12 schools of studies, who accommodate 32 different academic departments, in which currently 70+ different programs are running. To know more please click <https://www.curaj.ac.in>.

ABOUT THE DEPARTMENT

The Department of Mathematics was established in the very first year of the establishment of the University in June 2009 under the School of Mathematics, Statistics

and Computational Sciences with one unique PG program namely M. Sc. Tech. Mathematics of three year duration. In present time the Department is offering following programs- M.Sc. Mathematics (2 Year), Integrated M.Sc. B.Ed. Mathematics (3 Year), Integrated M.Sc. Mathematics (5 Year) & Ph.D. Mathematics. Department has been recognized as DST-FIST grantee in 2015. Current strength of the Department are as- faculty-10 and students around 225. For more details, please click <https://www.curaj.ac.in/departments/departments-mathematics>

ACCOMMODATION

Free accommodation will be provided in the guest house & hostels (girls and boys) in the beautiful campus of CURAJ, which is subject to availability. One may also book his/her accommodation on self payment basis in near by 2 & 3 star Hotels, which are available in the range of 3 Km to 10 Km.

TRAVEL ALLOWANCE

TA will be reimbursed (for UG & PG only sleeper class rail fare & for others AC-III class rail fare and non-AC bus fare through shortest route on production of valid tickets) to those participants, who do not have any kind of fellowships/stipend and belongs to College/University/Institutes, which is governed by UGC, Govt. of India, only.

HOW TO REACH UNIVERSITY

From Jaipur (~100Km Journey): One can reach Jaipur via train, flight and bus. From Jaipur airport or railway station, one can take a taxi or an auto and reach either RSRTC bus stand “Sindhi-camp” or “Dosau Feet Chauraha” and board a bus going to Ajmer. Get a ticket till Bandarsindri (~Rs. 100)

and get down at Bandarsindri bus stop. From there, take University van service or private e-rickshaw to reach the campus. One may also take a taxi directly from the airport or the railway station to reach the University campus (~Rs. 2500).

From Ajmer (~50km Journey): One can reach Ajmer by train or bus. From railway station, take an auto to reach the RSRTC bus stand and board a bus going to Jaipur. Get a ticket for Bandarsindri (~Rs. 60) and get down at Badarsindri bus stop. From there take University van service or private e-rickshaw to reach the campus. One may also hire a taxi directly from the railway station up to University (~Rs. 1800).

From Kishangarh (~20 Km Journey) : From Kishangarh airport or railway station or bus stand, take either a direct auto to the University campus (~Rs. 400) or reach to Kishangarh bus stand by regular auto service. Board a bus going to Jaipur and get down at Bandarsindri bus stop. From there, take University van service or private e-rickshaw to reach the campus.

For more details of CURAJ location please click <http://www.curaj.ac.in/location>

CONTACT FOR DETAILS

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