



WMO ARTS & SCIENCE COLLEGE

"education and some more"

Affiliated to University of Calicut

(Aided by Govt. of Kerala)

P.O. MUTTIL, WAYANAD, KERALA - 673122

Phone : 04936-203382 (Office)

04936-207532 (Principal)

e-mail : wmocollege@gmail.com

website: WWW.wmocollege.ac.in

Report on the Seminar on Research in Astronomy- Opportunities and Challenges.

The south regional Astronomers meeting on “ Research in Astronomy- Opportunities and Challenges ” was conducted at the Department of Physics, WMO Arts & Science College, Muttill, Wayanad, Kerala during 1-2 December 2017. The fourth in the series of annual meetings intended for fostering ties between astronomers in this region was inaugurated on the 1st of December by Prof Ranjeev Misra (IUCAA) in a meeting presided over by Dr TP. Muhammed Fareed, Principal of the college.

In the two-day Seminar, there were 27 presentations, each 15 minutes duration, given by research students from the region. New results from the fields of cosmology, AGN, Stars, ISM, IGM, Galaxies, Gravitational waves, Instrumentation and machine Language were presented. Active discussions which ensued after each presentation served to provide new insight and directions for the participating researchers. There were seven review talks by senior faculty members on various aspects of Astronomy. These talks were given by VC Kuriakose (CUSAT, Kochi), Annapurni Subramaniam (IIA, Bangalore), Charles Jose (CUSAT. Kochi), Indulekha (MG University, Kottayam), Blesson Mathew (Christ University, Bangalore) and Sajeeth Ninan Philip (St. Thomas college, Kozhenchery). Prof. Ranjeev Misra (IUCAA) and Dr. Joe Jacob (Newman College, Thodupuzha) were the academic coordinators.

Mr. Biju KG (Department of Physics, WMO College) officiated as the organizing secretary. Cultural programmes by the participants on the evening of the first day of the programme added lustre to the programme.

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Principal
W.M.O. Arts & Science College
Muttill P.O., Wayanad



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Editor :
Aseem Paranjape
(aseem@iuc.aa.in)

Editorial Assistant :
Manjiri Mahabal
(mam@iuc.aa.in)

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Meeting on Research in Astronomy: Opportunities and Challenges



The south regional astronomers meeting on Research in Astronomy: Opportunities and Challenges was conducted at the Department of Physics, WMO Arts and Science College, Muttill, Wayanad, Kerala, during December 1 - 2, 2017. The fourth in the series of annual meetings, intended for fostering ties between astronomers in this region, was inaugurated by Ranjeev Misra (IUCAA), and presided over by T.P. Muhammed Fareed (Principal, WMO Arts and Science College). There were 27 presentations, each of 15 minutes duration, given by the research students from the region. New results from the fields of Cosmology, AGN, Stars, ISM, IGM, Galaxies, Gravitational Waves, Instrumentation, and Machine Language were presented. Active discussions which ensued after each presentation served to provide new insights and directions for the participating researchers. There were 7 review talks by senior faculty members in various aspects of Astronomy, and were given by V.C. Kuriakose (CUSAT, Kochi), Annapurni Subramaniam (IIA, Bengaluru), Charles Jose (CUSAT, Kochi), K. Indulekha (Mahatma Gandhi University, Kottayam), Blesson Mathew (Christ University, Bengaluru), and Sajeeth Ninan Philip (St. Thomas College, Kozhenchery)). Ranjeev Misra and Joe Jacob (Newman College, Thodupuzha) were the academic coordinators, and Biju K.G. (WMO Arts and Science College) officiated as the organising secretary. There were cultural programmes by the participants on the evening of the first day of the meeting.

ABOUT THE COLLEGE

WMO Arts & Science college is an aided college, affiliated with University of Calicut and accredited by NAAC with 'A' grade. The college is established in 1995 and managed by Wayanad Muslim Orphanage (WMO), which is an endeavour to support the educationally and financially backward people of the region. The college is located in a beautiful hill area at Muttill, six km away from Kalbetta, the district headquarters. Presently it offers seven postgraduate programmes and 11 undergraduate level programmes.

Department of physics was established in the year 1995 along with the inception of the college. In the beginning, it offered BSc physics programme [with mathematics and computer science as a subsidiary. Later, in 2002, it was upgraded to a postgraduate department.

THE VARIOUS TOPICS OF FOCUS IN THE CONFERENCE

1. Cosmology
2. Active Galactic Nuclei (AGN)
3. Stars and ISM
4. Galaxies and IGM
5. Gravitational waves.

RESOURCE PERSONS

1. Prof. Ranjeev Misra, IUCAA, Pune
2. Dr. Annapurni Subramaniam, IIA, Bangalore
3. Dr. V.C Kuriakkose, CUSAT
4. Dr. Naseer Iqbal, JK university
5. Dr. Paul KT, Christ University, Bangalore
6. Dr. Sajeeth Ninan Philip, St. Thomas, Kozhenchery
7. Dr. Joe Jacob, Newman college, Thodupuzha
8. Dr. Minu Joy, Alphonsa college, Pala
9. Dr. Charles Jose, CUSAT
10. Dr. Blesson Mathew, Christ University, Bangalore
11. Dr. CD Ravikumar, Calicut University
12. Dr. Jeena Karunakaran, Providence college, Calicut

ORGANISING COMMITTEE

General Convener	Dr. TP Muhammed Fareed, Principal
Co-ordinators	Prof. Ranjeev Misra, IUCAA Dr. Joe Jacob, Newman College, Thodupuzha
Convener	Mr. Biju KG, HOD Physics
Members	1. Mr. Hashim NK 2. Mr. Joseph MV 3. Ms. Sumeesha KL 4. Fatima CK 5. Shamma VP 6. Neeraja Krishna 7. Aswathy MIS 8. Astraf Manoth.

REGIONAL ASTRONOMERS MEETING-IV

"ASTRONOMY RESEARCH: OPPORTUNITIES AND CHALLENGES"

1 - 2 DECEMBER 2017

Organized by

Inter University Centre for Astronomy and
Astrophysics (IUCAA), Pune

&

Department of Physics,
WMO Arts & Science College, Muttill



Dear all,

It is a matter of satisfaction that the astronomers of the southern region of India can come together every year, for the last four years, by conducting a regional meeting with the participation/patronization of all the members of the region. The meeting has grown into a venue for sharing the research findings, discussing, getting inputs from the seniors and fostering ties with the fellow researchers. The increasing number of participants every year is an indication of the appeal and the utility of the programme. It is always a motivating factor for the young researchers to hear from veteran astronomers from the various institutes who hail from the region. Those who have migrated to the region for joining institutes for job or research also actively participate in the meeting.

Meetings like the "Research in Astronomy—Opportunities and Challenges" being conducted at Wayanad this year are observed to be of much importance in the light of the big leap in the field of astronomy and astrophysics ushered in through the enhancement of instrumental capacity by the participation of our country in the ongoing big projects in the field. It is being felt that the regional meetings like this can act as nucleating centers where expertise and talent can be enhanced through sharing, interaction and mentoring. We all hope that requirement for doubling the manpower in the field of astronomy in the next decade will be well supplemented through efforts like this. It is also a matter of great happiness for all of us that our region probably abounds in such organizational activities.

Let us hope that the synergy and the co-operation evolving out of this meeting is sustained throughout and will lead us all to become stakeholders in an era of great achievements in this field of research. We all look forward to such activities replicated at other places joining together to create a vibrant future for astronomy in our country.

With the warmest welcome to you all to the meeting

Gen: Convener	Co-ordinators
Dr. TP Muhammed Fareed	Ranjeev Misra Joe Jacob
Convener:	
Biju KG	

PROGRAMME SCHEDULE

Day I: 01/12/2017, Friday

9.30 am	: Registration
10.00 am	: Inaugural session
Welcome speech	: Mr. Biju KG , HOD, Department of Physics.
Introductory remarks	: Dr. VC Kuriakkose , CUSAT
Presidential Address	: Dr. TP Muhammed Fareed , Principal, WMO college
Inaugural address	: Prof. Ranjeev Misra , IUCAA, Pune
Manager's message	: Sri. MA. Muhammed Jamal , Manager
Felicitations	: Dr. Naseer Iqbal , University of Kashmir, Srinagar Sri. Mayan Manima , Convener, Management Committee
Vote of Thanks	: Dr. Joe Jacob , Newman College, Thodupuzha
10.30AM - 5.30 PM	: Technical sessions
5.30-7.00	: Discussion
7.30-8.30	: Dinner

Day-II : 02/12/2017 Saturday

9.30 AM -3.00PM	: Technical sessions
3.15 PM	: Valedictory Function.

Regional Astronomy Meeting-IV
1-2 DECEMBER 2017
WMO ARTS & SCIENCE COLLEGE, MUTTIL

Programme Schedule

DAY-I: 01/12/2017

SESSION-I: 9.30-11.30		
9.30-10.00	Registration	
10.00-10.30	Inaugural session	
10.30-11.00	Dr.V.C. Kuriakkose, CUSAT	Gravitational Waves
11.00-11.30	Dr. Annapurni Subramaniam, IIA, Bangalore	The changing landscape of Astronomy.
Tea Break 11.30-11.45		
SESSION-II: 11.45-12.50: Cosmology_I:		
11.45-12.15	Dr.Minu Joy, Alphonsa college, Pala	CMB cold spots
12.15-12.30	Krishna P B, CUSAT	Do the generalized holographic equipartition implies entropy maximization
12.30-12.45	Athira Sasidharan, CUSAT	Bulk viscous matter dominated universe and recent acceleration
12.45-1.00	Paxy George, CUSAT	Decaying vacuum and recent acceleration of the universe.
LUNCH BREAK : 1.00-2.00		
SESSION-III: 1.50- 3.35: Cosmology_II:		
2.00-2.30	Dr.Charles Jose, CUSAT	Clustering of Galaxies.
2.30- 2.45	Jerin Mohan ND, CUSAT	Analysis of bulk viscous matter dominated universe using Israel-Stewart theory
2.45-3.00	Aiswarya A, Alphonsa college, Pala	Constraints on Scalar Tensor Ratio from WKB power spectra
3.00-3.15	Supin P Surendran, MG University, Kottayam	Reconstruction of Primordial Powerspectrum from Planck CMB Angular Power Spectrum using Tikhonov Regularization.
3.15-3.30	Reju Sam John, Pondichery University	Classification of galaxy clusters and groups according to the non thermal emission scaling law.
3.30-3.45	Raja gopalan Nair, CUSAT	A bulk viscous Zel'dovich fluid model of accelerating universe
TEA BREAK: 3.35-3.50		
SESSION-IV: 3.45-4.00: AGN		
4.00-4.30	Dr. K. Indulekha, MG Uty	Environment Dependence for the IMF - Some Implications
4.30-4.45	Jithesh V, IUCAA, Pune	Long-term Spectral Variability of the Ultraluminous X-ray source Holmberg IX X-1
4.45-5.00	Savithry Ezhikode, St. Thomas, Kozhenchery	Torus covering factors of type 1 AGN in the local Universe.
5.00-5.15	Sitha K Jagan, University of Calicut	Understanding the synchrotron spectral curvature of blazars
5.15-5.30	Nayana AJ NCRA, Pune.	Radio observations of a Type Ib supernova Master OT J120451.50+ 265946.6.
5.30-5.45	Sachin PC, IIST, Trivandrum	Detection of Warm - Hot baryons using quasar absorption spectroscopy
5.45-7.00	Discussion	
Dinner: 7.30-8.30		



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DAY-II: 02/12/2017

SESSION-I: 9.30-10.45: Stars		
9.30-9.45	Blesson Mathew, Christ Uty, Bangalore	Astronomy Research in Christ University
9.45-10.00	Ranjani. L. . Kandi, Christ Uty, Bangalore	H α emission line variability of Classical Be-Stars
10.00-10.15	Devarshi Choudhury & Amith Govind, Christ Uty, Bangalore	Characterizing Disc Evolution of Pre-Main Sequence Stars in 3 – 50 Myr Open Clusters
10.15-10.30	Gourav Banerjee, Christ Uty, Bangalore	Spectroscopic Studies of Galactic Field Be stars through CaII and FeII emission lines
10.30-10.45	Mohana Thara C, Christ Uty, Bangalore	Spectroscopic study for the transient nature of Be Stars.
TEA BREAK-10.45-11.00		
SESSION-II: 11.00-1.00: Stars, ISM & IGM, Galaxies		
11.00-1.30	Invited Talk	
11.30-1.45	Sonu Tabitha , IIST, Trivandrum	Probing Early Phases of High Mass Stars with 6.7 GHz Methanol Masers
11.45-2.00	Preethi K ,Christ Uty, Bangalore	Mapping extinction in the interstellar medium
12.00-2.15	Aditya Manuwal, IIST, Trivandrum	A Survey of Intervening C IV Absorbers at Low Redshifts
12.15-2.30	Sathyanarayanan K, Amrutha University	Dust scattering from Taurus Molecular Cloud
12.30-2.45	Aswathy. S, University of Calicut	Study of central intensity ratio in nearby galaxies.
12.45-1.00	Adarsh K, IISER, Kolkatta	Multi-wavelength study of the star cluster NGC6218
LUNCH BREAK- 1.00-1.45		
SESSION-III: Instrumentation, Gravitational Waves, Machine Language		
1.45-2.15	Sajeeth Ninan Philip, St. Thomas Kozhenchery	
2.15-2.30	Avinash Surendran, IIA, Bangalore	Development of a scalable generic platform for Adaptive Optics real time Control.
2.30-2.45	Sheelu Abraham, IUCAA, Pune	Automated Identification of Bars in Galaxies
2.45-3.00	Jishnu Suresh, IUCAA, Pune	Stochastic Gravitational Wave background.
TEA BREAK: 3.00-3.15		
SESSION-IV: Valedictory Function: 3.15- 4.00		



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