# 34<sup>th</sup> Annual Meeting of Astronomical Society of India

## 10-13 May 2016, University of Kashmir, Srinagar

Monday, May 9, 2016		
0:20 to 4:20	Workshop1: Tools and Trends in High Resolution Optical Spectroscopy (Biotechnology Auditorium)	
9:30 am to 4:30 pm	Workshop2: Big Data in Astronomy (EMMRC Auditorium)	
4.40 pm - 7.22 pm	Transit of Mercury through Telescopes (Convocation Complex Lawns)	
7.00 pm to 9.00 pm	Welcome Dinner and Registration(Shamiyana near Physics Department)	
	Tuesday, May 10, 2016	
9.00 am to 9:30 am	Registration(Shamiyana near Physics Department) & Welcome Tea	
9:45 am to 10:30 am	Inauguration and welcome speeches (Convocation Complex)	
10:30 am to 11:00 am	Tea Break	
11:00 am to 12:00 pm	Presidential Address: <b>Ajit Kembhavi</b> (Convocation Complex)	
12:00 pm to 12:30 pm	VainuBappu Award Lecture: N. Madhusudan (Convocation Complex)	
12:30 pm to 1:00 pm	Special Lecture on GW detection: Sukanta Bose (Convocation Complex)	
1:00 pm to 2:00 pm	Lunch	
2:00 pm to 3:00 pm	Public Lecture : Kiran Kumar, Chair, ISRO	
3:30 pm to 4:00 pm	Tea break	
	Parallel sessions:	
4:00 pm to 5:30 pm	Instrumentations 1: (Biotechnology Auditorium)  Stars & Galaxy 1: Extragalactic astronomy 1: (Ibn Khaldoon Auditorium)	
6:00 pm to 7:30 pm	Panel discussion on 'Opportunities in Astronomy' (EMMRC Auditorium)	
7:30 pm to 9:00 pm	Dinner & Departure to Hotels	
Wednesday, May 11, 2016		
	Plenary Session: ASTROSAT-First Science Results[Chairperson: Swarna Ghosh]	
9:30 am to 9:40 am	S. Seetha: Introduction to ASTROSAT	
9:40 am to 10:02 am	S.N. Tandon: Calibrations of UVIT and the first scientific results	
10:02 am to 10:24 am	K. P. Singh: First Scientific Results from observations with the Soft X-ray imaging Telescope onboard ASTROSAT	

10:24 am to 10:46 am	M.C. Ramadevi: SSM on ASTROSAT: First Results		
10:46 am to 11:08 am	J.S. Yadav: Large Area X-ray Proportional Counter (LAXPC)instrument onboard ASTROSAT		
11:08 am to 11:30 am	S. Vadawale: Initial results from ASTROSAT CZTI		
11:30 am to12:00 pm	Tea Break		
	Parallel Sessions:		
12:00 pm to 1:30 pm	Extragalactic Astronomy 2: (Biotechnology (IbnKhaldoon Auditorium)  Sun & Solar System 1: Special Session on Detection Gravitational Wave (EMMRC Auditorium)		
1:30 pm to 2:30 pm	Lunch		
	Parallel Sessions:		
2:30 pm to 4:00 pm	GR & Cosmology 1: Invited talk: Changbom Stars & Galaxy 2 Park (EMMRC Auditorium) (IbnKhaldoon Auditorium)		
4:00 pm to 5:30 pm	Tea break & Poster viewing		
6 pm	Banquet Dinner (Shamiyana near Physics Department)		
	Thursday, May 12, 2016		
	Plenary Session: Dynamical Systems[Chairperson: K. Subramanian] (Convocation Complex)		
9.30 amto 10.00 am	S. Sridhar: The disruption of multiplanet systems through resonance with a binary orbit		
10.00 am to 10.30 am	J.S. Bagla: Gravitational clustering in an expanding universe		
10:30 amto 11:00 am	Farooq Ahmed: Gravitational Clustering of Galaxies: Derivation of distribution function using statistical mechanics of cosmology many-body problem.		
11:00 am to 11:30 am	Tea Break & Poster viewing		
	Parallel Sessions:		
11:30 am to 1:00 pm	Extragalactic Astronomy 3: Invited talk: R. Srianand (IbnKhaldoon Auditorium)  Instrumentation 2: Invited Talks: SunetraGiridhar, MaheshwarGopinathan (Biotechnology Auditorium)		
1:00 pm to 2:30 pm	Lunch & Poster Viewing		
	Parallel Sessions:		
2:30 pm to 4:00 pm	GR & Cosmology 2: Invited talk: K. Subramanian (IbnKhaldoon Auditorium)  Stars & Galaxy 3: Invited Sun & Solar System 2: Invited talk: PiyaliChatterjee (Biotechnology Auditorium)		
4:00 pm to 5:00 pm	Tea Break & Poster Viewing		
5.00 pm to 6.30 pm	General Body Meeting (EMMRC Auditorium)		

	Friday, May 13, 2016	
	Plenary Session: Multi-Messenger Astronomy[Chairperson: Ram Sagar] (Convocation Complex)	
9:30 am to 10.00 am	Varun Bhalerao: Einstein's messengers: Gravitational wave sources and their electromagnetic counterparts	
10:00 am to 10:30 am	to 10:30 am Amol Dighe: Pauli's messengers: Looking at the sky in neutrinos	
10:30 am -11:00 am	:30 am -11:00 am Kuntal Misra: Optical Transients	
11:00 am to 11:30 am	Tea break	
11:30 am to 1:30 pm	Thesis Presentation (EMMRC Auditorium)	
1.30 pm to 2:30 pm	Lunch and end of conference	

# ASI-2016 Parallel Sessions: Tuesday,10 May, 2016

Tuesday, 10 May, 2016 Time: 16:00-17:30 Venue: EMMRC Auditorium		
Time	Speaker	Title
16:00–16.15	Tapas Baug	Galactic bubble N37 and surrounding star formation activity
16:15–16.30	Lokesh Kumar Dewangan	A multi-scale, multi-wavelength study of massive star-forming region W42
16:30–16.45	Jessy Jose	Effect of stellar feedback on subsequent star formation activity
16:45-17:00	Kaushar Vaidya	Optical Spectroscopy of X-ray Selected Young Stars in the Carina Nebula
17:00-17:15	Aruna Goswami	Carbon-Enhanced Metal-Poor stars: evolution, nucleosynthesis, observations and the impact on cosmochemistry
17:15-17:30	Susmitha Rani Antony	Oxygen abundances in carbon enhance metal poor (CEMP) stars: Comparison between CO and [OI] lines

Tuesday,10 May, 2016 Time:16:00-17:30				
	Venue: Ibn Khaldoon Auditorium			
	Extragalactic Astronomy-I [Ch	airperson: Somak Raychaudhury]		
Time	Speaker	Title		
16:00–16.15	Soumavo Ghosh	Effect of Dark Matter halo on spiral structures of different scales		
16:15–16.30	Suvendu Rakshit	First spatially resolved black hole mass of quasar 3C273		
16:30–16.45	Kartick C Sarkar	Multi-wavelength emission from galactic winds and Fermi Bubbles		
16:45-17:00	Vikas Chand	Spectral study of gamma ray bursts using CZTI of ASTROSAT		
17:00-17:15	Indranil Chattopadhyay	Simulation of accretion disc and multiple shocks		
17:15-17:30	Rupak Roy	Luminous Supernovae : Implication of shock interaction on the observed properties		

Tuesday, 10 May, 2016 Time:16:00-17:30		
Venue: Biotechnology Auditorium		
Instrumentation and Techniques-I[Chairperson:Eswar Reddy]		
Speaker Title		
Shiang-Yu Wang	Optical/IR Instrumentation Projects in Taiwan	
Arun Kumar Naidu	PONDER - A Real time software backend for pulsar and IPS observations at the Ooty Radio	

Time	Speaker	Title
16:00 – 16:20	Shiang-Yu Wang	Optical/IR Instrumentation Projects in Taiwan
16:20 – 16:35	Arun Kumar Naidu	PONDER - A Real time software backend for pulsar and IPS observations at the Ooty Radio Telescope
16:35 – 16:50	Saurabh Singh	On the Detection of Global 21-cm signal from Reionization using Interferometers
16:50 – 17:20	Maheswar Gopinathan	3.6m Devasthal Optical Telescope (DOT): Commissioning and early science

### ASI-2016 Parallel Sessions: Wednesday, 11 May, 2016

# Wednesday, 11 May, 2016 Time:12:00-13:30 Venue: Biotechnology Auditorium Sun and Solar System-I[Chairperson:Dipankar Banerjee] Speaker Title K. Chenna Reddy Strengths and limitations of the Ga

Time	Speaker	Title
12:00–12:15	K. Chenna Reddy	Strengths and limitations of the Gadanki MST radar for meteor observation
12:15 – 12:30	Gurpreet Kaur	Modelling the thermal evolution and differentiation of interior of Mars and Mercury
12:30 – 12:45	Ayesha Maryam Mazarbhuiya	Imaging polarimetric study on Comet 32P/Comas-Sola
12:45 – 13:00	Rohit	Characterisation of non-thermal solar emissions at low radio frequencies.
13:00 – 13:15	Kumar Venkataramani	Study of Molecular Gas Emissions from Cometary Coma
13:15 – 13:30	Avyarthana Ghosh	Fan Loops Observed by IRIS, EIS and AIA

Wednesday, 11 May, 2016 Time:12:00-13:30			
	Venue: Ibn Khaldoon Auditorium		
	Extragalactic Astronomy-II[	Chairperson:Suchetana Chatterjee]	
Time Speaker Title			
12:00–12:15	Lijo Thomas George	Low Frequency Study of Merging Galaxy Clusters using the MWA	
12:15–12:30	Deovrat Prasad	Role of cooling and AGN jets in the evolution of cool-core galaxy clusters.	
12:30-12:45	Pradeep Chandra	VHE gamma-ray observations of Markarian 421 and B20806+35 using TACTIC during 2015-16.	
12:45 – 13:00	Hum Chand	Weak emission line radio-quite QSOs using ESO data	
13:00 – 13:15	Rabinur Khatun	Radio Observations of Candidate Dual Active Galactic Nuclei in Double Peaked Emission Line Galaxies	
13:15 – 13:30	Zahir Ahmad Shah	Multi-Wavelength Study of 3C454 During August 2015 Flaring	

Wednesday, 11May, 2016 Time: 12:00-13:30			
	Venue: EMMRC Auditorium		
Gravitational Wave detection [Chairperson:Sukanta Bose]			
Time Speaker Title			
12:00 – 12:30	ArchanaPai	Strategy and algorithms for detection of GW150914	
12:30-13:00	K.G. Arun	Astrophysical implications of GW150914	
13:00-13:30	P. Ajith	Waveforms for gravitational wave search	

		y, 11 May, 2016 14:30-16:00	
	Venue: Ibn Kh	aldoon Auditorium	
(	General Relativity and Cosmolog	y-I [Chairperson: N. Panchapakeshan]	
Time Speaker Title			
14:30 – 15:00	Changbom Park (I)	Cosmological Constraints from the Redshift Dependence of Galaxy Clustering Anisotropy	
15:00–15.15	Abhirup Ghosh	Testing general relativity using golden black-hole binaries	
15:15–15.30	Nisha Rani	Parametric and nonparametric contraints on Transition redshift	
15:30–15.45	Archisman Ghosh	Prospects of estimating cosmological parameters from gravitational-wave observations of coalescing binary black holes.	
15:45-16:00	Shankaranarayanan S.	Low scale Higgs Inflation with Gauss Bonnet Coupling	

#### Wednesday, 11 May, 2016 Time:14:30-16:00

#### **Venue: EMMRC Auditorium**

#### Stars, The Milky Way Galaxy and its Neighbours-II [Chairperson: G.C. Anupama]

Time	Speaker	Title
14:30–14:45	Lalitha Sairam	Magnetic activities in the outer atmospheres of RS CVn-type Binaries
14:45–15:00	Arti Joshi	Photometry and Polarimetry study of Cataclysmic Variables (CVs)
15:00-15:15	Anindita Mondal	Abundance analysis of the Recurrent nova RS Ophiuchi (2006 outburst)
15:15 – 15:30	Mayukh Pahari	Spectro-temporal analysis of X-ray binaries using LAXPC on-board ASTROSAT satellite
15:30 – 15:45	Gaurava K Jaisawal	Suzaku observations of the Be/X-ray binary pulsar GX 304-1
15:45 – 16:00	Hyung Mok Lee	Dynamical Formation of Compact Binaries in Dense Star Clusters

## ASI-2016 Parallel Sessions: Thursday, 12 May, 2016

Thursday, 12May, 2016 Time:11:30 - 13:15					
	Venue: Ibn Khaldoon Auditorium				
Extragalactic Astronomy–III [Chairperson: Pushpa Khare]					
Time	Speaker	Title			
11:30-12:00(I)	R. Srianand	On the star formation in high-z DLAs			
12:00-12:15	J N H S Aditya	Cold Gas in High Redshift Galaxies			
12:15-12:30	Charles Jose	Non-linear clustering of high redshift galaxies			
12:30-12:45	Katherine Rawlins	Multi-component $H_2$ absorption in a damped Lyman- $\alpha$ absorber at $z_{abs} = 2.054$ - spectroscopic analysis & simulation			
12:45-13:00	Sonali Sachdeva	Evolution of disc galaxies for the past 8 Gyrs			
13:00-13:15	Sandeep Rana	HI intensity mapping, co-adding and cross-correlation			

Thursday, 12 May, 2016 Time:11:30-13:00 Venue: Biotechnology Auditorium			
Time	Speaker	Title	
11:30 – 12:00 (I)	Sunetra Giridhar	HESP: an echelle spectrograph for 2m HCT	
12:00-12:20	Prasanna Deshmukh	Simulator for Primary Mirror Control System of Segmented Mirror Telescope	
12:20–12:40	Vineeth Valsan	Development of Stressed Mirror Polishing Technology	

Thursday, 12 May, 2016 Time:14:30-16:00					
	Venue: Ibn Khaldoon Auditorium				
General Relativity and Cosmology-II[Chairperson:Jasjeet Bagla]					
Time	Speaker	Title			
14:30–15:00	K. Subramanian (I)	Origin of Cosmological magnetic fields: Primordial AND dynamos?			
15:05–15:15	Shishir Sankhyayan	Large Scale Structures and Clusters-Voids Cross- correlation			
15:15–15:30	Rajesh Mondal	Statistics of the epoch of reionization 21-cm signal : Power spectrum error-covariance			
15:30 – 15.45	Asif Iqbal Ahangar	Entropy excess and energy deposition profile in galaxy clusters up to virial radius			
15:45 – 16.00	Bidisha Bandyopadhyay	Can Annihilating Clumped Dark Matter lead to Helium Reionization?			

Thursday, 12 May, 2016 Time:14:30-16:00					
	Venue: EMMRC Auditorium				
Stars, The Milky Way Galaxy and its Neighbours–III [Chairperson: H.P. Singh]					
Time	Speaker	Title			
14:30-15:00(I)	Sharanya Sur	Galaxy outflows without supernovae			
15:00-15:15	Naveen Yadav	Dynamics of Supernova Driven Supershells			
15:15-15:30	Jayant Murthy	Modeling the diffuse ultraviolet background			
15:30-15:45	Smitha Subramanian	Signatures of a tidally stripped stellar population from the inner regions of the Small Magellanic Cloud			
15:45-16:00	Samir Mandal	Spectral properties of pair-plasma in disc-jet system around black hole			

#### Thursday,12 May, 2016

Time:14:30-16:00

#### **Venue: Biotechnology Auditorium**

#### Sun and Solar System-II [Chairperson: Divya Oberoi]

Time	Speaker	Title
14:30-15:00(I)	Piyali Chatterjee	Mystery of repeatedly flaring delta sunspots
15:00-15:15	Sreejith Padinhatteeri	Delta-sunspot groups and Solar Flares
15:15-15:30	Suruchi Goel	The statistical study of global properties of sunspots in SoHO/MDI continuum images over solar cycle 23
15:30-15:45	Vaibhav Pant	Kinematics of fast and slow CMEs
15:45-16:00	Tanmoy Samanta	Response of chromospheric jets in the corona

## ASI-2016 Thesis Presentations: Friday, 13 May, 2016

Friday, 13 May, 2016				
Time: 11:30 - 13:30				
Thesis presentations				
Time	Speaker	Title		
11:30 – 11.45	S. Rathna Kumar	Determination of \$H_0\$ through monitoring of gravitationally lensed quasars		
11:45 – 12:00	S. Athiray	Study of lunar surface chemistry using Swept Charge Devices		
12:00 – 12.15	Samyaday Choudhury	Study of evolved stellar populations in the Magellanic Clouds		
12:15 - 12:30	K Sasikumar Raja	Radio Polarization Studies of the Solar Corona at Low-frequencies		
12:30 - 12:45	Drisya K	Studies on Carbon-Enhanced Metal-Poor (CEMP) stars		
12:45 - 13:00	Raja Bayanna	Study of coupling between the layers of the solar atmosphere at high resolution		
13:00 – 13:15	Archana Soam	Investigation of galactic star forming regions and young stellar objects		
13:15 - 13:30	V. Venkataraman	Infrared investigations of circumstellar matter		