

Schedule of PARC-2021(Online)

All the timings are in Indian Standard Time (IST)

26.10.2021 (Day-1)

9.30-9.50 A.M.: Inauguration (meet.google.com/acd-bjzp-cqt)

Invited Talk (10.00 AM -1.20 PM)

Google Meet Link: meet.google.com/acd-bjzp-cqt

Session	Time	Speaker	Title	Chairman
IT 1	10.00-11.00	Prof. Pankaj S. Joshi ICC, Carusat University, India	Frontiers in Black Hole Physics	Prof. B. Mishra BITS-Pilani, Hyderabad Campus
IT 2	11.10-12.10	Prof. Tomo Takahashi Saga University, Japan	Constructing and probing inflationary models	Prof. S.V. Chervon Ulyanovsk State Pedagogical University, Russia
IT 3	12.20-1.20	Eleonara Di Valentino Durham University, UK	Cosmological tensions: hints for a new concordance model?	Prof. A. Beesham University of Zululand, South Africa

Lunch Break



27th International Conference of International Academy of Physical Sciences on Advances in Relativity and Cosmology (PARC-2021), October 26-28, 2021.

Parallel Session I

Google Meet Link: meet.google.com/acd-bjzp-cqt

Time: 2.30 PM- 4.00 PM

Chairman: Prof. R.K. Mishra, SLIET, India

Time	Speaker	Title
2.30-2.45	Amritendu Haldar	Thermodynamic Studies the Kiselev Black Hole, inside a Spherical Cavity in Extended Phase Space
2.45-3.00	Vivek Sharma, Suman Ghosh	Can warped extra dimensions support Ellis-Bronnikov wormholes?
3.00-3.15	Aditi Krishak, Dhiraj Kumar Hazra	Gaussian Process Reconstruction of Reionization History
3.15-3.30	Ritabrata Biswas	Accretion on Regular Black holes: Impacts When no Singularity at all Exists
3.30-3.45	Sandip Dutta	Study of shear viscosity over entropy density ratio for accretion disk around black hole
3.45-4.00	Mayukh Bandyopadhyay	Rotating Black Hole: Thermodynamics under Dark Energy affected Universe

Tea Break

Time: 4.15 PM- 6.00 PM

Chairman: Prof. Daniel Blixt, University of Tartu, Estonia

Time	Speaker	Title
4.15-4.30	Promila Biswas	Studying Behaviours of Barboza, Alcaniz, Zhu and Silva Redshift Model
4.30-4.45	Yogesh Vishwanath Chavan	Theory of 3 Folds 4-Dimensional Universe (Beyond Standard Model of Particle Physics)
4.45-5.00	Okunev V.S.	On the refinement of some relations of the general theory of relativity
5.00-5.15	Albray Gebremariam	Some Aspects of non-linear Hyperbolic systems of Conservation Laws
5.15-5.30	Anjali Pandey, Rajesh Kumar, Sudhir Kumar Srivastava	Spherically Symmetric Gravitational Collapse of Inhomogeneous Dust Cloud In The Background Of Dark Energy
5.30-5.45	Grishma Verma	Singularity formation in radiating star with dark energy background
5.45-6.00	Z. Yousaf	Quasi-homologous Evolution and Structure Variables





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Parallel Session II

Google Meet Link: meet.google.com/jod-pbgq-pyy

Time: 2.30 PM- 4.00 PM

Chairman: Prof. A.K. Yadav, United College of Engineering, India

Time	Speaker	Title
2.30-2.45	S. Surendra Singh, L. Anjana Devi	LRS Bianchi type-1 cosmological model in $f(R,T)$ gravity with time dependent cubic deceleration parameter.
2.45-3.00	V Mohammed Shareef, ND Jerin Mohan, Titus K Mathew	Bayesian analysis of bulk viscous dominated universe based on causal dissipated model
3.00-3.15	Kamal Bora, Shantanu Desai	Tests of variation of fine structure constant and Cosmic Distance-Duality violation using SPT-SZ clusters
3.15-3.30	Krishna P. B., Titus K. Mathew	Emergence of Space and the Horizon Thermodynamics in a Non-flat Universe
3.30-3.45	Biplob Sarkar	Exploring the magnetized dissipative accretion flow properties onto a spinning black hole
3.45-4.00	R. Nitish, Rohit K. Gupta, Supriya Kar	Perspective of Perihelion Precision in Torsion Geometries

Tea Break

Time: 4.15 PM- 6.00 PM

Chairman: Prof. Shibesh J. Pacif, Centre for Cosmology and Science Popularization, SGT University, India

Time	Speaker	Title
4.15-4.30	Shyam Das, Bikram Keshari Parida, Megandhren Govender	The dependence of tidal Love number on the equation of state parameter for compact objects
4.30-4.45	Mobin Ahmad, Mohammad Aamir Qayyoom	Warped product skew semi-invariant submanifolds of locally golden Riemannian manifold
4.45-5.00	Soumya Chakraborty, Sudip Mishra, Subenoy Chakraborty	Dynamical system analysis of three-form field dark energy model with baryonic matter
5.00-5.15	Gunjan Varshney, Umesh Kumar Sharma, Anirudh Pradhan, Narendra Kumar	Reconstruction of Tachyon, Dirac-Born-Infeld-essence and Phantom model for Tsallis holographic dark energy in $f(R, T)$ gravity
5.15-5.30	Faizuddin Ahmed	Relativistic scalar particle under the effects of Lorentz symmetry violation subject to Cornell-type potential
5.30-5.45	L.Manikanta Singh, A.K. Shrivastav.	Behaviours of Bulk Viscous dark energy model in Friedman-Robertson-Walker Universe
5.45-6.00	Asem Jotin Meitei	A study on Higher Dimensional spherically symmetric cosmological model with Quadratic Equation of state in Lyra Geometry





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Parallel Session III

Google Meet Link: meet.google.com/ojd-iisf-wod

Time: 2.30 PM-4.00 PM

Chairman: Prof. Nirman, Ganguly, BITS-Pilani, Hyderabad Campus

Time	Speaker	Title
2.30-2.45	S.P.Hatkar, G.D.Karhale, S.D.Katore	Electromagnetized Modified Chaplygin Gas in Bianchi type IX Universe
2.45-3.00	R.K.Tiwari	A cosmological model with constant jerk parameter in F(R,T)gravity
3.00-3.15	A.Narasimharao, D.Neelima	Kantowski-Sachs in saez-Ballester theory of Gravitation with Cold dark matter and dark energy
3.15-3.30	Rajesh Karmakar, Debaprasad Maity	Absorption Cross-section of Ringing Black hole:Superradiance
3.30-3.45	Surojit Dalui, Bibhas Ranjan Majhi	A tale of two phenomena: Instability and Thermality, in the near horizon region.
3.45-4.00	D. D. Pawar, R. V. Mapari	Plane Symmetric Cosmological model with Interacting field in Lyra Geometry.

Tea Break

Time: 4.15 PM-6.00 PM

Chairman: Prof. Pratik P. Ray, VIT-AP University

Time	Speaker	Title
4.15-4.30	A.Y.Shaikh	Renyi and Tsallis Holographic Dark Energy Models with Hubble's Horizon Cutoff
4.30-4.45	Suvankar Paul	Gravitational Lensing in the strong deflection limit by a null naked singularity
4.45-5.00	Gopika K, Shantanu Desai	A test of constancy of dark matter halo surface density and radial acceleration relation in relaxed galaxy groups
5.00-5.15	Shubhra	An Anisotropic and Spatially Homogeneous Bianchi type-I Cosmological Model In Saez-Ballester Cosmology Filled With Viscous Fluid
5.15-5.30	Sarath N, Titus K. Mathew	Significance of running vacuum energy model against standard Λ CDM
5.30-5.45	Sasmita Kumari Pradhan, S. K. Tripathi, Zasmir Naik.	Little rip scenario in Brans-Dicke theory
5.45-6.00	A. A. Grib, Yu. V. Pavlov	Superheavy dark matter particles and their conversion into ordinary matter in rotating black holes.





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27.10.2021 (Day-2)

Invited Talk (9.30 AM- 1.00 PM)

Google Meet Link: meet.google.com/acd-bjzp-cqt

Session	Time	Speaker	Title	Chairman
IT 4	9.30-10.30	Prof. L. Sriramkumar IIT, Madras	Small scale signatures of non-trivial inflationary and post-inflationary dynamics	Prof. P.K. Sahoo BITS-Pilani, Hyderabad Campus
IT 5	10.45-11.45	Prof. S.D. Odintsov ICREA and ICE, CSIC- IEEC, Barcelona, Spain	The unification of inflation with dark energy in axion F(R) gravity	Prof. S.K. Tripathy IGIT, Sarang, India
IT 6	12.00-1.00	Prof. T. Paul University of Budwan	Applications of modified gravity in 4 and 5 dimensions	Prof. Tomo Takahashi Saga University, Japan

Lunch Break



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Parallel Session IV

Google Meet Link: meet.google.com/acd-bjzp-cqt

Time: 2.30 PM- 4.00 PM

Chairman: Prof. Jibitesh Dutta, NEHU, Shillong, India

Time	Speaker	Title
2.30-2.45	Sanjay Oli	Two-fluid Cosmological Model in Five-dimensional Space-time
2.45-3.00	Nandhida Krishnan. P, Titus K Mathew	Interacting Barrow Holographic Dark Energy cosmological implications
3.00-3.15	Tanusree Roy, Ujjal Debnath	Van der Waals black hole as a Heat engine
3.15-3.30	Karim Mosani, Dipanjan Dey, Pankaj S. Joshi, Vitaali Vertogradov	Globally visible singularities formed due to gravitational collapse
3.30-3.45	T. Vinutha, K. Sri Kavya and K. Niharika	Bianchi type cosmological models in modified theory with exponential functional form
3.45-4.00	Laxmipriya Pati, S.A. Kadam, B. Mishra	Rip Cosmological Model in Extended Symmetric Teleparallel Gravity

Tea Break

Time: 4.15 PM- 5.45 PM

Chairman: Prof. Arun Kenath, CHRIST(Deemed to be University), India

Time	Speaker	Title
4.15-4.30	Kenath Arun, Avijeet Prasad, C Sivaram	Gravity of Negative Mass: Some Subtle Aspects and Implications
4.30-4.45	Santosh V Lohakare, B. Mishra, S.K. Tripathy	Matter Bounce Scenario in F(R,G) Gravity
4.45-5.00	Louise Rebecca, C Sivaram, Kenath Arun	Can Hubble tension be eased by invoking a finite range for gravity?
5.00-5.15	Jibitesh Dutta	Painleve singularity analysis of cosmological solutions and growth index of matter perturbations in the f(Q) gravity
5.15-5.30	Keshav Ram Mishra	Dynamics of Gravitational Collapse in a Background of Dark Energy
5.30-5.45	O.V. Kiren, Kenath Arun, C Sivaram , K T Paul	Dark Matter primordial planets admixed with Baryonic particles





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Physical Sciences on Advances in
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Parallel Session V

Google Meet Link: meet.google.com/jod-pbgq-pyy

Time: 2.30 PM-4.00 PM

Chairman: Prof. S.K. Sahu, Arba Minch University, Ethiopia

Time	Speaker	Title
2.30-2.45	Chanchal Chawla, Archana Dixit, Anirudh Pradhan	Modeling of Traversable Wormholes in Exponential $f(R,T)$ Gravity
2.45-3.00	S.K.J. Pacif, Simran Arora, P.K. Sahoo	Late-time acceleration with a scalar field source: Observational constraints and state finder diagnostics
3.00-3.15	Sanjay Mandal, N. Myrzakulov, P.K. Sahoo, R. Myrzakulov	Cosmological bouncing scenarios in symmetric teleparallel gravity
3.15-3.30	N. Hulke, G. P. Singh, B. K. Bishi	Bianchi-I Dark energy Cosmological Models with generalised Chaplygin gas and time periodic varying deceleration parameter
3.30-3.45	Diksha Trivedi, Ajit Kumar Bhabor	Higher Dimensional Bianchi Type-I Dark Energy Models with Barotropic Fluid in Saez-Ballester Scalar-Tensor Theory of Gravitation
3.45-4.00	Alcides Garat	Einstein-Maxwell tetrad grand unification

Tea Break

Time: 4.15 PM-5.45 PM

Chairman: Prof. D.D. Pawar, SRTM University, Nanded

Time	Speaker	Title
4.15-4.30	Narasimhamurthy S K, Nekouee Z, Manjunatha H M	Thermodynamic Product Formulae for Reissner-Nordstrom-de Sitter Black Hole
4.30-4.45	S. Niranjan Singh, T. Ibungochouba Singh	Hawking Radiation of the Charged Massive Particle and Tunneling from the Kerr-Newman-de Sitter black hole
4.45-5.00	Sohan kumar jha, Himangshu Barman, Anisur Rahaman	Planck-scale effect through a new MDR
5.00-5.15	G. Mustafa, Zinnat Hassan, P. H. R. S. Moraes, P. K. Sahoo	Wormhole solutions in symmetric teleparallel gravity
5.15-5.30	Naresh Kumar Chandnani	Bianchi Type V Magnetized Stiff Fluid Models in Lyra Geometry
5.30-5.45	G P Singh and Ashwini R Lalke	Cosmological study with hyperbolic solution in modified $f(Q, T)$ gravity theory.





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Parallel Session VI

Google Meet Link: meet.google.com/ojd-iisf-wod

Time: 2.30 PM-4.00 PM

Chairman: Prof. Sankarsan Tarai, Utkal University, India

Time	Speaker	Title
2.30-2.45	Y.Prasanthi, D.Neelima	Modified holographic Ricci dark energy cosmological model in Nordtvedt's theory of gravitation.
2.45-3.00	A. S. Agrawal, S. Mishra, S.K. Tripathy and B. Mishra	Matter bounce scenario in the functional form of $f(R)$ gravity
3.00-3.15	G.K.Goswami, Rita Rani, J.K.Singh, Harshna	A Study of the FLRW Cosmological Model in $f(R)$ Gravity
3.15-3.30	Bibekananda Nayak	Interacting Dark Energy, Coincidence Problem and Black Holes
3.30-3.45	N. Dimakis, A. Paliathanasis and T. Christodoulakis	Quantum Cosmology in $f(Q)$ gravity
3.45-4.00	Andrei Grib, Vitalii Vertogradov, Leonid Shleiger	Forces for the particles with negative and zero energy in Kerr metric.

Tea Break

Time: 4.15 PM-5.45 PM

Chairman: Prof. Sharmistha Banik, BITS-Pilani, Hyderabad Campus

Time	Speaker	Title
4.15-4.30	Md Rijul Haque, Debaprasad Maity, Tanmoy Paul, and L. Sriramkumar	Decoding the phases of early and late time reheating through imprints on primordial gravitational waves
4.30-4.45	S.A. Kadam, B. Mishra	Late time cosmic acceleration model in extended theory of gravity.
4.45-5.00	D. P. Tadas, S. D. Katore	Holographic Dark Energy Cosmological Model in Modified Theory of Gravitation
5.00-5.15	Raja Solanki, S.K.J. Pacif, Abhishek Parida, P.K. Sahoo	Cosmic acceleration with bulk viscosity in modified $f(Q)$ gravity.
5.15-5.30	Umesh Kumar Sharma and Vandna Srivastava	Reconstructing Tsallis holographic quintessence
5.30-5.45	K Nobleson, Tuhin Mallik, Sarmistha Banik	Tidal deformability of neutron stars with exotic particles within a density dependent relativistic mean field model in R-squared gravity





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Public Talk

Google Meet Link: meet.google.com/acd-bjzp-cqt

Time	Speaker	Title	Chairman
6.00 PM- 7.00 PM	Prof. Patrick Das Gupta University of Delhi, India	Chern-Simons Gravity, Torsion, Dark energy and Super Massive Black holes from a Dynamical Four-Form	Prof. P. K. Thiruvikraman BITS-Pilani, Hyderabad Campus





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Physical Sciences on Advances in
Relativity and Cosmology (PARC-2021), October 26-28, 2021.**

28.10.2021 (Day-3)

Invited Talk (9.30 AM- 1.00 PM)

Google Meet Link: meet.google.com/acd-bjzp-cqt

Session	Time	Speaker	Title	Chairman
IT 7	9.30-10.30	Prof. Surhud More IUCAA, Pune, India	Weak lensing cosmology from the Subaru Hyper Suprime-Cam survey	Prof. Ali Ovgun Eastern Mediterranean University, Gazimağusa, North Cyprus
IT 8	10.45-11.45	Prof. A. Beesham University of Zululand, Mangosuthu University of Technology, South Africa	Some thoughts on the Cosmological Constant	Prof. Rahul Nigam BITS-Pilani, Hyderabad Campus
IT 9	12.00-1.00	Prof. S.V. Chervon Ulyanovsk State Pedagogical University, Russia	Method of multiple scales in scalar field cosmology	Prof. C.P. Singh DTU, New Delhi

Lunch Break



**27th International Conference of International Academy of
Physical Sciences on Advances in
Relativity and Cosmology (PARC-2021), October 26-28, 2021.**

Parallel Session VII

Google Meet Link: meet.google.com/acd-bjzp-cqt

Time: 2.30 PM-3.45 PM

Chairman: Prof. B.C. Paul, University of North Bengal, West Bengal, India

Time	Speaker	Title
2.30-2.45	A Y Shaikh, S Tarai, S K Tripathy, B Mishra	Bouncing cosmological model with general relativistic hydrodynamic in extended gravity
2.45-3.00	A. Saha, S. Ghose, A. Chanda, B. C. Paul	Renyi Holographic Dark energy in Kaluza-Klein theory.
3.00-3.15	S. Dey, B.C. Paul	Study of Charged Compact Object in Higher Dimension with Finch-Skea Geometry
3.15-3.30	Vitalii Vertogradov	Non-linearity and asphericity of Vaidya space-time and forces in the naked singularity
3.30-3.45	Vyacheslav I. Dokuchaev and Natalia O. Nazarova	Visible images of invisible black holes.

Tea Break

Time: 4.00 PM to 5.15 PM

Chairman: Prof. Saibal Ray, College of Engineering and Ceramic Technology, Kolkata, India

Time	Speaker	Title
4.00-4.15	Suraj Kumar Pati	Picture of Expanding Universe in Starobinsky type Metric $f(R)$ Gravity
4.15-4.30	Hassan Basari. V.T., P. B. Krishna, Titus K. Mathew	Emergence of space in $f(R)$ gravity for FRW Universe
4.30-4.45	N.H. Beltrán and A.C. Gutierrez-Piñeres	Generation of new rotating wormholes with the Newman-Janis ansatz
4.45-5.00	Kadali suresh, D. Neelima	Axially Symmetric Cosmological Model with Cold Dark Matter and Dark Energy In Saez Ballester Theory Of Gravitation
5.00-5.15	li benliang	The Underlying Mechanisms of Time Dilation in Curved Space-Time





**27th International Conference of International Academy of
Physical Sciences on Advances in
Relativity and Cosmology (PARC-2021), October 26-28, 2021.**

Parallel Session VIII

Google Meet Link: meet.google.com/jod-pbgq-pyy

Time: 2.30 PM-3.45 PM

Chairman: Prof. Avik De, Universiti Tunku Abdul Rahman, Malaysia

Time	Speaker	Title
2.30-2.45	Debasis Sahu	Evolution of the Universe in Loop Quantum Cosmology
2.45-3.00	Gargi Biswas, B Modak	Euclidean wormhole in Einstein Gauss Bonnet dilaton interaction
3.00-3.15	Md Khurshid Alam	A new anisotropic cosmological model using hyperbolic function
3.15-3.30	T. Vinutha, K. Venkata Vasavi	The study of accelerating DE models in Saez-Ballester theory of gravitation
3.30-3.45	Sudha Agrawal	LRS Bianchi Type- II Cosmological Model in $f(R, T)$ Theory of Gravity with varying deceleration parameter.

Tea Break

Time: 4.00 PM-5.15 PM

Chairman: Prof. Parbati Sahoo, UKZN, Durban, South Africa

Time	Speaker	Title
4.00-4.15	Avik De	Modified gravity and some geometric restrictions
4.15-4.30	Jing-Theng Beh, Tee-How Loo, Avik De	Geodesic Deviation Equation in $f(Q)$ Gravity
4.30-4.45	Chingtham Sonia	A dynamical system study of cosmological models for different possibilities of G and ρ_{Λ}
4.45-5.00	T. Vinutha, G. Satyanarayana	Non-Static plane symmetric cosmological model in R^2 – gravity
5.00-5.15	M.Vijaya Santhi, T.Chinnappalanaidu, S. Srivani Madhu	Viscous Ricci dark energy cosmological model in a scalar--tensor theory of gravitation





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Parallel Session IX

Google Meet Link: meet.google.com/ojd-iisf-wod

Time: 2.30 PM-3.45 PM

Chairman: Prof. J. Jaganmohan, BITS-Pilani, Hyderabad Campus

Time	Speaker	Title
2.30-2.45	Evgeny Osetrin, Konstantin Osetrin, Altair Filippov	Exact models of pure radiation in R2 gravity for spatially homogeneous wave-like Shapovalov spacetimes type II.
2.45-3.00	Prashant R. Dhongle	The de-Sitter Model with Dark Energy
3.00-3.15	Gowtham Sidharth M, Sanjit Das	Shadow of Non-singular Magnetic Monopole in Perfect Fluid Dark matter.
3.15-3.30	D. D. Pawar, S. P. Shahare	Anisotropic plane symmetric model with massless scalar field
3.30-3.45	Jhumpa Bhadra, Ujjal Debnath	Accretions of logarithmic and power law entropy corrected (m,n) type Pilgrim dark energies onto (D+2)-dimensional black hole

Tea Break

Time: 4.00 PM-5.15 PM

Chairman: Prof. Sashideep Gutti, BITS-Pilani, Hyderabad Campus

4.00-4.15	Konstantin Zloshchastiev	Superfluid vacuum theory and its predictions for astrophysics, particle physics and cosmology
4.15-4.30	K.Niharika, T. Vinutha	The Study of Anisotropic Bouncing Cosmological Model in Modified Gravity
4.30-4.45	Dheepika M, Titus K. Mathew	Tsallis Holographic Dark Energy as Dynamical Vacuum – State finder Analysis
4.45-5.00	M.Vijaya Santhi, T.Chinnappalanaidu, Are Srinivasa Rao	Bulk viscous string cosmological model in f(R) theory of gravity.
5.00-5.15	Shilpi Dewangan	Solution of Restricted Three Body Problem and Study of Periodic Orbits Under the Combined Influence of Radiating Oblate Spheroid and Triaxial Rigid Body

5.30-5.45 P.M.: Valedictory

Google Meet Link: meet.google.com/acd-bjzp-cqt

