International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

Schedule of the Webinar

09.03.2021 (Day-1)

9.10-9.25 A.M.: Inauguration (https://meet.google.com/ipj-drrt-fmo)

Invited Talk

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Session	Time	Speaker	Title	Chairman
IT 1	9.30-10.30	Prof. T.P. Singh T.I.F.R., Mumbai	Towards the unification of the four fundamental forces	Prof. S. Banik BITS-Pilani, Hyderabad Campus, India
IT 2	10.45-11.45	Prof. Emmanuel Saridakis National Observatory of Athens, Greece	Investigation of torsional modified gravity through multi-messenger observations.	Prof. Ali Övgün Eastern Mediterranean University, Cyprus
IT 3	12.00-1.00	Prof. Sergei V. Chervon Ulyanovsk State Pedagogical University, Russia	Chiral Self-Gravitating Models as Equivalent of f(R) gravity with higher derivatives.	Prof. A. Beesham University of Zululand, South Africa

Lunch Break

International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

Paper Presentation: Session I (2.30 PM-4.00 PM)

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

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

Time	Speaker	Title
2.30-2.45	U.Y. Divya Prasanthi, Y. Aditya	Observational constraints on Renyi holographic dark energy in Kantowski-Sachs universe
2.45-3.00	Z. Yousaf	Complexity Factor of Static Feometric Structures
3.00-3.15	Faizuddin Ahmed	Quantum effects on spin-0 scalar particle under a Cornell-type potential in the background of Kaluza-Klein theory
3.15-3.30	Snehasish Bhattacharjee, P.K. Sahoo	Big Bang Nucleosynthesis and Entropy Evolution in f(R,T) Gravity
3.30-3.45	Reena Tandon, Vaibhav Brock	Cosmological Model in Lyra Geometry
3.45-4.00	B. C. Paul	Emergent Universe via dynamical wormhole

Tea Break

Paper Presentation: Session II (4.15 PM to 5.45 PM)

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Chairman: Prof. Z. Yousaf, Punjab University, Pakistan

Time	Speaker	Title
4.15-4.30	Gopika K., Shantanu Desai	Scaling relations for dark matter core density and radius from Chandra X-ray cluster sample
4.30-4.45	Shyam Das	Study of anisotropic compact stellar object accounting tidal Love numbers
4.45-5.00	Andronikos Paliathanasis	Quantum potentiality in Szekeres geometries
5.00-5.15	Mohammad Salman	Conharmonic curvature inheritance in spacetime of general relativity
5.15-5.30	P. B. Krishna, Titus K. Mathew	Emergence of space and horizon thermodynamics in Einstein, Gauss Bonnet and Lovelock gravities
5.30-5.45	Yashmitha Kumaran, Ali Övgün	Weak Deflection angle of Extended Uncertainty Principle Black holes

International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

Paper Presentation: Session III (2.30 PM-4.00 PM)

Google Meet Link: https://meet.google.com/jbh-zufo-dkf

Chairman: Prof. S.K. J. Pacif. VIT, Vellore

Time	Speaker	Title
2.30-2.45	Kamal Bora , Shantanu Desai	Constraints on the variation of fine structure constant from joint SPT-SZ and XMM-Newton observations
2.45-3.00	M. Z. Bhatti. Z. Tariq	Electromagnetic effects on polytropes in f(R) gravity
3.00-3.15	Daba Meshesha Gusu	LRS Bianchi Type-II Cosmological Model with Time Varying G and Λ in f(R,T) Gravity
3.15-3.30	S.P. Hatkar, S.P. Saraogi, S.D. Katore	Glimpses of Anisotropic Chaplygin Gas
3.30-3.45	Deepika Golechha, G. R. Avchar, S. Tade	Transit Cosmological Models of Universe with Perfect Fluid and Heat Flow in f(R, T) Gravity
3.45-4.00	Parbati Sahoo, P.H.R.S. Moraes, P.K. Sahoo, Marcelo M. Lapola	Traversable Wormholes in the Traceless f(R,T) gravity

Tea Break

Paper Presentation: Session IV (4.15 PM to 5.45 PM)

Google Meet Link: https://meet.google.com/jbh-zufo-dkf

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

Time	Speaker	Title
4.15-4.30	Daniel Blixt, María-José Guzmán, Manuel Hohmann, Christian Pfeifer	Viability of teleparallel gravity
4.30-4.45	N. P. Gaikwad	Locally Rotationally Symmetric Bianchi Type II Magnetized String Cosmological Model with Bulk Viscous Fluid in Rosen's Bimetric Gravity
4.45-5.00	Karim Mosani, Dipanjan Dey, Pankaj S. Joshi	Local versus global nakedness of a spacetime singularity
5.00-5.15	Asem Jotin Meitei	Five Dimensional Bianchi Type-III cosmological model with Quadratic Equation of state in Lyra Geometry
5.15-5.30	Nobleson, Tuhin Malik, Amna Ali, Sarmistha Banik	Comparative study of perturbative and nonperturbative methods of R-squared gravity using Neutron stars
5.30-5.45	Priyanka	Cosmological model in f(R,T) theory of gravity

International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

10.03.2021 (Day-2)

Invited Talk

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Session	Time	Speaker	Title	Chairman
IT 4	9.30-10.30	Prof. Shinji Mukohyama Kyoto University, Japan	Minimalism in modified gravity	Prof. P.K. Sahoo BITS-Pilani, Hyderabad Campus
IT 5	10.45-11.45	Prof. Aroon Kumar Beesham	Dark Energy and Accelerated Expansion of the Universe	Prof. P.K. Thiruvikraman BITS-Pilani, Hyderabad Campus
IT 6	12.00-1.00	Prof. Alessandra SIlvestri Leiden University, The Netehrelands	Probing gravity and dark energy in the era of multi-messenger Cosmology	Prof. B. Mishra BITS-Pilani, Hyderabad Campus

Lunch Break

International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

Paper Presentation: Session V (2.30 PM-4.00 PM)

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

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

Time	Speaker	Title
2.30-2.45	Salam Kiranmala Chanu	Particle Creation In Five Dimensional Cosmological Model With Time Dependent G and Lambada
2.45-3.00	Ali Övgün	Testing Modified Gravity Theories Using Weak Deflection Angle and Black Hole Shadow
3.00-3.15	Saikat Chakraborty	Towards a ΛCDM Universe in f(R) gravity
3.15-3.30	Sankarsan Tarai, Pratik P. Ray. S.K. Tripathy, B.Mishra	Effect of bulk viscosity in cosmic acceleration
3.30-3.45	Suchita A. Mohta , Prabha Rastogi	Interaction between Baratropic fluid and Dark energy with zero mass scalar field in f(R,T) gravity
3.45-4.00	M.Z. Bhatti	Influence of Modification of Gravity on The Dynamical Analysis of Self-Gravitating Objects

Tea Break

Paper Presentation: Session VI (4.15 PM to 6.00 PM)

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Chairman: Prof. Arun Kenath, Christ College, Bangalore, India

Time	Speaker	Title
4.15-4.30	Arun Kenath; Louise Rebecca; C. Sivaram	Alternate models of gravity: Consequences for cosmological observations
4.30-4.45	Saboura sadat Zamani	Gravitational lensing by a black hole in Poincaré gauge theory
4.45-5.00	Louise Rebecca; Arun Kenath; C. Sivaram	Dark matter conundrum: A case for alternate theories of gravity
5.00-5.15	S. K. Tripathy, Sasmita Kumari Pradhan,B. Mishra	Unified dark fluid and cosmic transit models in Brans-Dicke theory
5.15-5.30	Jagat Daimary	Five Dimensional FRW Radiating Models In Presence of Bulk Viscos Cosmological Models In Saez-Ballester Theory of Gravitation
5.30-5.45	Kazuharu Bamba, Emilio Elizalde, S. D. Odintsov, Tanmoy Paul	Inflationary magnetogenesis with reheating phase from higher curvature coupling.
5.45-6.00	A.S. Agrawal, S.K. Tripathy, B.Mishra	Gravitational baryogenesis models comparisons in f(R) Gravity

Paper Presentation: Session VII (2.30 PM-4.00 PM)

Google Meet Link: https://meet.google.com/jbh-zufo-dkf

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

Time	Speaker	Title
2.30-2.45	Ahmed Farag Ali	Black Hole Universal Clock
2.45-3.00	M.Vijaya Santhi, T. ChinnappalaNaidu	Study on Some Strange Quark Cosmological Models in a Modified Theory of Gravity
3.00-3.15	Prashant R. Dhongle	Spherically Symmetric Model With Electromagnetic Field In Time – Independent Gravitational Field
3.15-3.30	Jibitesh Dutta and W. Khyllep	Bifurcations in the general non-minimally coupled scalar field models
3.30-3.45	Sanjay Mandal, Deng Wang, P.K. Sahoo	Cosmography in f(Q) Gravity
3.45-4.00	Absos Ali Shaikh	Lorentzian Concircular Structure Manifolds and Ricci Solitons

Tea Break

Paper Presentation: Session VIII (4.15 PM to 5.45 PM)

Google Meet Link: https://meet.google.com/jbh-zufo-dkf

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

Time	Speaker	Title
4.15-4.30	Heena Dua, R. K. Mishra	Accelerating Model of the Universe in Modified Gravity
4.30-4.45	Musavvir Ali	Computing of soliton on a charged black-hole
4.45-5.00	Sandhya Mhaske, Y. S. Solanke, V. J. Dagwal, D. D. Pawar	Two fluid Bianchi Type V cosmological model in f(R, T) theory of gravity.
5.00-5.15	B. Mishra, Fakhereh Md Esmaeili, Pratik P. Ray, S.K. Tripathy	Stability analysis of two-fluid dark energy models
5.15-5.30	M. Yousaf	Dynamical stability analysis of axial anisotropic geometry in modified gravity theory.
5.30-5.45	Jerin Mohan N D, Titus K Mathew	Viscous Late Acceleration Universe

International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

11.03.2021 (Day-3)

Invited Talk

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Session	Time	Speaker	Title	Chairman
IT 7	9.30-10.30	Prof. N.D. Haridass Retd Senior Professor, IMSc Chennai.	Some remarks on dark matter and modified gravity	Prof. Christian Pfeifer University of Tartu
IT 8	10.45-11.45	Prof. Francisco S.N. Lobo Instituto de Astrofisica e Ciencias do Espaco, Partugal	Beyond Einstein's General Relativity: Hybrid metric-Palatini gravity and curvature-matter couplings.	Prof. C.P Singh DTU, New Delhi
IT 9	12.00-1.00	Prof. Salvatore Capozziello Universita' di Napoli "Federico II", Napoli, Italy	Cosmological Applications of non-local gravity	Prof. S.K. Tripathy IGIT, Sarang

Lunch Break

International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021)

Paper Presentation: Session IX (2.30 PM-4.00 PM)

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Chairman: Prof. Sankarsan Tarai, Utkal University, India

Time	Speaker	Title
2.30-2.45	Chinmay Gandevikar	PN Properties of EMRI Using Power Law Potential
2.45-3.00	Venkata Vasavi	The Study of Anisotropic Perfect Fluid Cosmological Model in f(R, T) Gravity
3.00-3.15	Simran Arora, S.K.J. Pacif, S. Bhattacharjee, P.K. Sahoo	f (Q, T) Gravity Models With Observational Constraints
3.15-3.30	Tensubam Alexander Singh	Higher Dimensional FRW Model Universe in Scalar Tensor Theory of Gravitation Using Quadratic Equation of State.
3.30-3.45	Gargee Chakraborty, Surajit Chattopadhyay	Probing the Cosmological Consequences of Barrow Holographic Dark Energy with Specific Nojiri-Odintsov Cut-off and its Thermodynamics
3.45-4.00	Nishant Singla, Anil Kumar Yadav, M. K. Gupta	Bulk viscous Universe with dominance of dark energy

Tea Break

Paper Presentation: Session X (4.15 PM to 5.15 PM)

Google Meet Link: https://meet.google.com/ipj-drrt-fmo

Chairman: Prof. Pratik P. Ray, VIT-AP, Amravati, India

Time	Speaker	Title
4.15-4.30	Sagar Dey	Compact objects with Finch-Skea geometry in f(T) gravity
4.30-4.45	Santosh Kumar Yadav	Constraints on Dark Matter-Photon Coupling Model with CPL Parametrization of Dark Energy
4.45-5.00	Reginald Christian Bernardo	Gravitational waves from dark sector interactions
5.00-5.15	P.V. Gayakwad	Bulk Viscous Bianchi Type I Barotropic Fluid Cosmological Model with Varying Λ and Functional Relation on Hubble Parameter in Bimetric Theory of Gravitation

Paper Presentation: Session XI (2.30 PM-4.00 PM)

Google Meet Link: https://meet.google.com/jbh-zufo-dkf

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

Time	Speaker	Title
2.30-2.45	Reena Tandon, Jaya gupta	To Study The Behaviour of Dark Energy in The Accerlating Expansion of Universe.
2.45-3.00	T. Vinutha, B. Raja Shekar and K. Sri Kavya	Dynamics of Bianchi Type II, VIII & IX Cosmological Models In f(R, T) Theory
3.00-3.15	A. Chanda and B. C. Paul	Observational constraints on Emergent Universe in presence of Non-linear Viscous Fluid
3.15-3.30	Debasis Sahu, Bibekananda Nayak	Expansion of the Universe in Interacting Dark Energy Model
3.30-3.45	Bibekananda Nayak	Black Hole Dynamics in The Universe Having Single Scale Factor
3.45-4.00	Vipin Kumar Sharma, Ajay Kumar Sharma, Murli Manohar Verma	Diagnostic Signature For GW Scalar Mode Mass and Dispersion Relation in f(R) Background

Tea Break

Paper Presentation: Session XII (4.30 PM-5.15 PM)

Google Meet Link: https://meet.google.com/jbh-zufo-dkf

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

4.15-4.30	T. Vinutha, K. Niharika	The Study of Kantowski- Sachs Perfect Fluid Cosmological Model In Modified Gravity
4.30-4.45	S. H. Shekh, V. R. Chirde, S. V. Raut	Bouncing scenario with energy conditions in modified theories of gravitations
4.45-5.00	Reena Tandon, Sonia Arora	Study of Cosmological Model With BI-Quadratic Varying Deceleration Parameter in f(R, T) Theory
5.00-5.15	S. H. Shekh; V. R. Chirde; S. V. Raut	Bouncing scenario with energy conditions in modified theories of gravitations

5.30-5.45 A.M.: Valedictory