




DEPARTMENT OF _____
DYAL SINGH COLLEGE, UNIVERSITY OF DELHI
FACULTY DETAIL



Title	Dr	First Name	Abdullah	Last Name		Photograph
Designation		Assistant Professor				
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Residence Mobile		8527343960				
Email		Abdullah.maths@dsc.du.ac.in				
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Educational Qualifications						
Degree		Institution			Year	
Ph.D.		Jamia Millia Islamia			2009	
Career Profile						
Jan. 2023--Present~~~~ Assistant Professor, Department of Mathematics, Dyal Singh College, University of Delhi, Delhi, India.						
Oct. 21--Jan. 2023, Assistant Professor, Department of Mathematics, Shivaji College, University of Delhi, Delhi, India.						
Jan.2020--April.2020, Assistant Professor, Department of Mathematics, AND College, University of Delhi, Delhi, India. %-----						
Aug. 2014-- Aug. 2019.....Assistant Professor, Department of Mathematics, College of Science Zulfi, Majmaah University, Kingdom of Saudi Arabia. %-----						
Sept. 2010-- Aug. 2014.....Assistant Professor, Department of Mathematics, ARSD College, University of Delhi, Delhi, India. %-----						
Aug. 2010-- Sept. 2010, Assistant Professor, Department of Mathematics, Zakir Hussain College, University of Delhi, Delhi, India. %-----						
Jan. 2010-- July 2010.....Lecturer, Department of Mathematics, G.P.M.C.E., Delhi, Indraprastha University, Delhi, India.						
Administrative Assignments (From 1 st July 2019 onwards)						
Convenor Time table committee, Department of Mathematics, DSC -2023-2025						
Convenor Arts Time-table committee, DSC --- 2024-2025						
Areas of Interest / Specialization						
Applied Mathematics---Celestial Mechanics						
Subjects Taught						
Differential Equations, Calculus, Mechanics, Multivariate Calculus, Vedic Mathematics, Elementary linear algebra, Applied Mathematics for Engineering, Partial Differential Equations, Vector Calculus,						

Integral Calculus, Calculus of several Variables, Differential Geometry, Basic It Tools, Introduction to Geometry.

Research Guidance

NA

Publications Profile

Effects of modified potential and quantum correction in the generalized perturbed interacting CR3B problem with variable mass, **Solar system research**, 58(6), 745--758, 2024.

A new kind of Robes problem with charged bodies, **Modern Physics Letter A**, 2450095, 2024. DOI: 10.1142/S0217732324500950

Mass variation effect in CR3B problem with nanoscale, **Modern physics letter A**, 39(6), 2450083, 2024.

Circular Restricted Three-Body Interaction Problem With Various Perturbations, **Applications and Applied Mathematics: An international Journal (AAM)**, 19 (1), 15, 2024.

Motion properties of the variable mass smallest body in cyclic kite configuration with kerr-like oblate heterogeneous primaries, **Gulf journal of Mathematics**, 16(1), 109-122, 2024.

Non-linear stability in the cr3b problem under the effects of beyond-newtonian dynamics and kerr like primaries, **Astronomy reports**, 68(3), 277-293, 2024.

Kerr-like oblate heterogeneous primaries in PCRFB problem with variable mass infinitesimal body, **Modern Physics letter-A**, 39(4), 2350205, 2024.

Perturbed R3BP with logarithmic potential, **Astronomy reports**, 67(12), 1473-1482, 2024.

Effects of perturbations and solar sail on the motion of test particle in CRTBP, **Romanian Astronomical J.**, 33(1-2), 157-170, 2023, DOI 10.59277/RoAJ.2023.1-2.10.

Equilateral triangular configuration in the perturbed circular restricted 4-body problem with kerr like primaries and variable mass test particle, **Astronomy reports**, 67(10), 999-1007, 2023.

Bi-circular model with test particle variable mass, **Annals of Mathematics and Computer Science**, 19, 42-52, 2023.

Motion properties in the GPCR3BP with their interactions under the effects of variable mass and asteroids belt, **Astronomy reports**, 67(6), 655-666, 2023.

Interactions of various shaped bodies in PCR3BP, **Journal of Contemporary Applied Mathematics**, 13(1), 83--98, 2023.

Halo orbits under some perturbations in the cr3b problem, **Symmetry**, 15, 418, 2023.
<https://doi.org/10.3390/sym15020481>.

Oblateness and mass variation effects on the Hill R4BP, <https://doi.org/10.21203/rs.3.rs-2615800/v1>, 2023.

Study the non-linear stability of non-collinear libration point in the restricted three-body configuration when the shapes of the primaries are taken as heterogeneous and finite straight segment, **Solar system research**, 57(3), 261-277, 2023.

Shapes and mass variation effects of the bodies in the generalized elliptic restricted 3-body problem, **Astronomy reports**, 67 (4), 393-403,} 2023.

Interaction of 3-body in the circular restricted problem with variable mass, **Astronomy and computing**, 42, 2023, <https://doi.org/10.1016/j.ascom.2023.100688>.

The Kerr-like primaries in the circular Hill problem with variable mass, **Solar system research**, 56(6), 433-444, 2022.

Behaviour of Variable Mass Infinitesimal Body in the CR3BP With Heterogeneous Primary and Finite Straight Segment Secondary, **Romanian Astro. Journal**, 32(2), 113-126, 2022.

Triaxial primaries in collinear circular perturbed 4-body configuration, **Astronomy report**, 66(11), 1074-1081, 2022.

Study the effect of Modified Newtonian Force on the restricted 3-body configuration in Non-Linear sense, **Applications and Applied Mathematics : An International Journal**, 17(2), 450-471, 2022.

Effects of mass variation in the collinear perturbed Moulton-Copenhagen configuration, **International Journal of Analysis and Applications**, 20, 44, 2022.

Collinear configuration in the circular restricted four-body problem with a variable mass, **Annals of Mathematics and Computer Science**, 8, 11-20, 2022.

Variable mass body motion in the perturbed Robes configuration, **Astronomy reports**, 66(7), 595-605, 2022.

Perturbed Robes problem with charged bodies, **Romanian Astronomical Journal**, 32(2), 83-94, 2022.

Impact of Some Perturbations on the Generalized Elliptic Hill Problem, **Mechanics in Solids**, 57(5), 1104-1117, 2022, <https://doi.org/10.3103/S002565442205003X>.

Analysis of equilibrium points in quantized Hill system, **Mathematics (MDPI)**, 10, 2186, 2022.

Numerical exploration of the variable mass test particle on the perturbed cr3b configuration, **New Astronomy**, 97, 101885, 2022.

Measuring Complexity and Chaos in Three - Species Food Chain system with

the Beddington-DeAngelis Functional Response,
Bulletin of the Allahabad Mathematical society, 37, part-1, 53-69, 2022.

Hill restricted four-body problem with variable mass,
Gulf Journal of Mathematics, 12(2), 57-65, 2022.

Dynamical behavior of infinitesimal variable mass body in the frame of elliptical Hill problem, **Romanian Astronomical Journal**, 32(1), 15-33, 2022.

Motion of variable mass body in the seventh-degree Henon-Heiles system,
Applications and Applied Mathematics : An International Journal, 17(2), 439-449, 2022.

Behaviour of motion of infinitesimal variable mass oblate body in the generalized perturbed circular restricted three-body problem,
Italian Journal of Pure and Applied Mathematics, 47, 221-239, 2022.

Dynamical properties of body with variable mass in a fifth-order Henon-Heiles system,
Astronomy reports, 66(1), 64-74, 2022.

The dynamical study of infinitesimal variable mass body in nonlinear sense of restricted three-body problem with heterogeneous primaries, **Applications and Applied Mathematics : An International Journal**, 16(2), 1274-1294, 2021.

Generalized CR3B problem with heterogeneous primary and secondary as finite straight segment,
Applications and Applied Mathematics : An International Journal, 16(2), 1120-1129, 2021.

Triaxial primaries in circular Hill problem,
Astronomy reports, 65(11), 1178-1183, 2021.

Analysis of parking points within the frame of perturbed elliptic restricted problem of three bodies,
Romanian Astronomical Journal, 31(3), 275-291, 2021.

Variable mass motion in the Henon-Heiles system,
Modern Physics Letters A, 36(21), DOI: 10.1142/S0217732321501509, 2021.

Heterogeneous primary in the restricted three-body problem with modified Newtonian potential of secondary, **Bulgarian Astronomical Journal**, 35, 76, 2021.

Perturbed Hill's problem with variable mass, **Astronomical Notes**, 342(4), 666-674, 2021.
<https://doi.org/10.1002/asna.202113870>.

Generalized Robe's problem having oblate heterogeneous primary containing viscous fluid inside the outer most layer and radiating spherical secondary with modified Newtonian potential, **Science International, Lahore**, 33(2), 147-151, 2021.

Cylindrical smallest third body in the frame of CR3B problem,
GEDRAG & ORGANISATIE REVIEW, 34(02), 1-12, 2021.

Dynamical behaviour of motion of small oblate body in the generalized elliptic restricted 3-body problem with variable mass, **Romanian Astronomical Journal**, 31(1), 81-100, 2021.

Properties of motion of the infinitesimal variable mass body in the well known circular restricted three-body problem with Newtonian and Yukawa potential, **Appl. Math. Inf. Sci.**, 15(2), 189-197, 2021.

Motion of test particle in the outer layer of heterogeneous body, **GEDRAG \& ORGANISATIE REVIEW**, 34(01), 1-12, 2021.

Vertical motion of the variable infinitesimal mass in the circular Sitnikov problem, **Application and Applied Mathematics**, 15(2), 1350-1361, 2020.

Various perturbations considered on the generalized circular restricted three-body problem, **Science International, Lahore**, 32(6), 771-776, 2020.

A planar five-body problem in a framework of heterogeneous and mass variation effects, **Astronomical Journal**, 160, 216, 2020,

On Robe's restricted problem with modified Newtonian potential, **International Journal of Geometric Methods in Modern Physics**, <https://doi.org/10.1142/S0219887821500055>, 18(1), 2150005 2020.

Perturbed six-body configuration with variable mass, **Romanian Astronomical Journal**, 30 (2), 135—152, 2020.

Kind of Robe's restricted problem with heterogeneous irregular primary of N -layers when outer most layer has viscous fluid, **New Astronomy**, 83, <https://doi.org/10.1016/j.newast.2020.101496> 2020.

Generalized elliptic restricted four-body problem with variable mass, **Astronomy Letters**, 46(4), 275-288, 2020.

The motion properties of the variable mass planetoid in the elliptical Sitnikov problem, **GEDRAG & ORGANISATIE REVIEW**, 33(03), 398-405, 2020.

Chaos measure in Autonomous LPA Model, **GEDRAG & ORGANISATIE REVIEW**, 33(02), 2687-2694, 2020.

Behaviour of small variable mass particle in electromagnetic Copenhagen problem, **Sultan Qaboos University Journal for Science**, 25(1), 61-77, 2020.

Gravitational potential formulae between two bodies with finite dimensions, **Astronomical Notes**, 341(6-7), 656-668, 2020. DOI : 10.1002/asna.202013726

Complexity Dynamics of Gumowski-Mira Map, **Applications and Applied Mathematics : An International Journal**,

15(1), 273-281, 2020.

Variable mass of a test particle in Copenhagen problem with Manev-type potential,
Research and review journal for Physics, 9(1), 17-27, 2020.

Cyclic kite configuration in the restricted five-body problem with variable mass,
Applications and Applied Mathematics: An International Journal,
14(2), 985-1002, 2019.

Heterogeneous primaries in CR4BP,
International Journal of Advanced Astronomy, 7(2), 49-56, 2019.

The motion properties of the infinitesimal body in the framework of bicircular Sun-perturbed Earth-Moon system, **New Astronomy**, 73, 101282, 2019.

Effect of oblateness and viscous force in the Robe's circular restricted three-body problem,
New Astronomy, 73, 101280, 2019.

Perturbed Robe's CR3BP with Viscous Force,
Astrophysics and Space Science, 364, 95, 2019.

Effect of charge in the circular restricted three-body problem with variable masses,
Journal of Taibah University for Science, 13(1), 670-677, 2019.

The restricted five-body problem with cyclic kite configuration,
Journal of Dynamical Systems and Geometric Theories, 17(1), 91-107, 2019,
DOI : 10.1080/1726037X.2018.1551720.

Heterogeneous Oblate Primaries in Photo-gravitational CR5BP with Kite Configuration,
Journal of Nepal Mathematical Society, 2(1), 1-14, 2019.

Behavior of an infinitesimal-variable-mass body in CR3BP; the primaries are finite straight segments,
Punjab University Journal of Mathematics, 51(5), 107-120, 2019.

Non-linear stability of L_4 in the R3BP when the smaller primary is a heterogeneous triaxial rigid body with N layers, **Italian Journal Of Pure and Applied Mathematics**, 41, 297-312, 2019.

Conference Organization/ Presentations (From 1st July 2019 onwards)

*Online Two-week Mathematics refresher course (FDP-312), Vedic Mathematics,
Ramanujan College, University of Delhi, New Delhi, India, 31, March,-- 13, April 2024.*

*Online Two-week interdisciplinary refresher course (FDP-312)
Manaqing online classes \& co-creating MOOCs-29.0,
Ramanujan College, University of Delhi, New Delhi, India, 05 August,-- 19 August 2023.*

FACULTY INDUCTION/ORIENTATION PROGRAM (FIP - 35).

<u>Ramanujan College, University of Delhi, New Delhi, India, 22 June--21 July, 2023.</u>
<u>International Contemporary Environmental issues by Sustainable Approaches (ICMCESA-2022), AND College, University of Delhi, New Delhi, India, Feb (22-28), 2022.</u>
Research Projects (Major Grants/Research Collaboration) (From 1 st July 2019 onwards)
NA
Awards and Distinctions (From 1 st July 2019 onwards)
NA
Association With Professional Bodies
NA
Other Activities like MOOCs/ Patents etc. (From 1 st July 2019 onwards)
NA

Abdullah
Signature of Faculty Member