

**Teacher's Profile for College Website, Motilal Nehru College (Eve.)
University of Delhi**

Name:	Dr. SUMIT KUMAR	Photograph
Designation	Assistant Professor	
Contacts		
Address		
Phone No.		
Office	Motilal Nehru College Evening	
Residence		
Mobile No.		
Email	Sumit.ims85@gmail.com	
Web Page		
Educational Qualifications		
Degree	Institution	Year
10 th	JNVKK Jind, Haryana	2005
12 th	JNVKK Jind, Haryana	2007
B.Sc.(H) Mathematics	ARSD college (DU)	2010
MSc. Mathematics	Kirori Mal College (DU)	2012
Ph.D.	Department of Mathematics (DU)	2023
NET JRF		2016
Administrative and Students related Assignments		
1. Invigilation 2. Evaluation 3. NAAC work 4. Member of Cultural societies: Fusion 5. Discipline duties 6. TIC department of mathematics 2025-26		
Career Profile		
Papers Taught		
Metric Space, Group Theory, Numerical Methods, Real Analysis, Differential Equations, Analytic Geometry, Elements of Discrete Mathematics		
Areas of Interest/Specialization		
Non-linear Dynamics, Celestial Mechanics, Metric Space		
Research Articles		
1. Bhavneet Kaur, Sumit Kumar , Shipra Chauhan and Dinesh Kumar (2020): Stability Analysis of Circular Robe's R3BP with Finite Straight Segment and Viscosity . <i>Appl. and Appl. maths.: An Int. J. (AAM)</i> , Vol. 15, No. 2, pp. 1072—1090. 2. Bhavneet Kaur, Sumit Kumar (2021): Stability analysis in the perturbed CRR3BP finite straight segment model under the effect of viscosity . <i>Astrophys Space Sci</i> , Vol. 366, Article no. 43. IF=1.989 3. Bhavneet Kaur, Sumit Kumar , and Rajiv Aggarwal (2022): Effects of viscosity, oblateness, and finite straight segment on the stability of the equilibrium points in the RR3BP . <i>Appl. and Appl. maths.: An Int. J. (AAM)</i> , Vol. 17, No. 1, pp. 81 - 98. 4. Bhavneet Kaur, Sumit Kumar , and Rajiv Aggarwal (2022): Effects of Viscosity and Oblateness on the Perturbed Robe's Problem with Non-Spherical Primaries , <i>Kinematics and Physics of Celestial Bodies</i> , Vol. 38, No. 5, pp. 248 – 261. IF=0.389,		

https://doi.org/10.3103/S088459132205004X 5. Bhavneet Kaur, Sumit Kumar, and Rajiv Aggarwal (2023): Effect of Finite Straight Segment on the Non-linear Stability of the Equilibrium Point in the Planar Robe's Problem. <i>Astronomy Reports</i>, Vol. 67, No. 4, pp. 424-437. ISSN 1063-7729, IF 1.172 6. Kumar, S., Kaur, B., Kumar, M., Kumar, N. (2026): Equilibrium and stability in Robe's restricted problem with a line segment and modified potential. <i>Astrophys Space Sci</i> 371, 55. https://doi.org/10.1007/s10509-026-04584-2
Books
Chapters in Books
1. A note on the Robe's Restricted three-body Problem. Bhavneet Kaur, Shipra Chauhan, Sumit Kumar Application of Mathematical Tools in Social Sciences and Sciences Editor: Prof. (Dr.) Masroor Ahmad beg and Dr. G.S. Tuteja ISBN No. 978-81-950791-7-9, Page no.: 151-158(2021)
MOOCS
Seminars, Paper Presentations
1. Combined Effect of Viscosity and Finite Straight Segment in the Circular Robe's Restricted Three-Body Problem: First National Conference on "Application of Mathematical Tools in Social Sciences and Sciences (Online)" organized by Zakir Husain Delhi College, University of Delhi from October 17--18, 2020. 2. Effects of viscosity in the perturbed CRR3BP with a non-spherical primary: 26th International conference of IAPS (Online) on "Advances in Differential Equations & Mathematical modelling (IC-ADE-MM-2020)" jointly organized by School of Computational and integrative science, JNU, New Delhi-110067 & International Academy of Physical Science (IAPS) from December 18--20, 2020. 3. Stability Analysis of Circular Robe's R3BP with Finite Straight Segment and Viscosity: IAU (International Astronomical Union) Symposium 364, Multi-scale (time & mass) dynamics of space objects, October 18--22, 2021. 4. Finite Straight segment model of Robe's restricted three-body problem under the effect of viscosity: 27th International conference of IAPS (Online) on "Recent Advances in Mathematics & Computational Optimization (RAMCO)" jointly organized by School of Computational and integrative science, JNU, New Delhi-110067 & International Academy of Physical Science (IAPS) from October 26--28, 2021. 5. Effects of a finite straight segment on the non-linear stability of the equilibrium point in the planar Robe's problem: the international conference CELMEC VIII taking place from 5-9 September 2022 at the Department of Mathematics at the University of Rome Tor Vergata (Poster Presentation).
Research Projects

Research Guidance
Awards and Distinctions
• Chairman Scholarship for Standing 4th in UDSC in B.Sc.(H) Maths 1st year,2007-08. • NBHM (National Board for Higher Mathematics) M.Sc. Scholarship 2011-12. • 1st Position in Mathematics Quiz held at Maitreyi College (DU), 2009-10. • 1st Position in Su-doku competition held at PGDAV College (DU), 2009-10. • 1st Position in Mathematical Tambola competition held at PGDAV College, 2009-10. • 1st Position in B.Sc. (H) Maths 3rd year in ARSD College, 2009-10. • Chairman Scholarship for Standing 10th in UDSC in B.Sc. (H) Maths, 2009-10. • 2nd Position in B.Sc.(H) Maths 1st year in ARSD College, 2007-08 • ‘A’ Certificate of NCC
Others: