

Seminar Invitation: Analytical investigation and graphical simulations for the solitary wave behavior of Chaffee-Infante equation

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Speakers' Brief Introduction

Ms. Iffat Bano is an MPhil Scholar working under the supervision of Prof. Dr. Ghazala Akram. The field of research of a student is Computational Mathematics, specializing in Nonlinear Partial Differential Equations.



Astract

The Chaffee-Infante equation has several useful applications in the field of electromagnetic waves, fluid dynamics, plasma physics, signal processing in optical fibers, and sound waves. In this talk, the (1+1)-D and (2+1)-D forms of the Chaffee-Infante equation are theoretically investigated to determine the variations in wave structure of the considered model by finding the analytical exact closed-form solutions of the considered equations. The traveling wave solution expressions are retrieved which involve rational, hyperbolic, and trigonometric functions. The solitons and other traveling wave structures are observed through two and three-dimensional graphical simulations.

Departmental Seminar Series

The Seminar Series serves as a platform to showcase and celebrate the remarkable work carried out by our researchers, scholars, and experts. It provides an avenue for knowledge dissemination and collaboration, creating an environment that nurtures innovative ideas and drives groundbreaking research. We proudly acknowledge and celebrate the remarkable contribution of Prof. Dr. Muhammad Sharif in introducing this seminar series back in 2005. The Seminar Series encompasses a wide range of topics, spanning various disciplines, ensuring that it caters to the diverse interests and expertise of our institute's community. Through these seminars, we aim to cultivate an environment of intellectual curiosity, stimulating meaningful discussions, and fostering interdisciplinary collaborations.



Please join us for this Presentation

When: Wednesday 5th July 2023; 02:00PM- 02:15PM
Where: Computer Lab, Department of Mathematics, University of the Punjab, Lahore

Chairman Message



It is my honor to witness the passion and dedication that our faculty and students bring to the study of this beautiful discipline. I encourage our faculty members to create a supportive environment that nurtures and promotes mathematical research. I urge each and every one of you, regardless of your level of experience, to actively participate in mathematical research and contribute to the growth of our research community. It is our collective responsibility to create an ecosystem that encourages and facilitates research pursuits.

Coordinator Departmental Seminar Series

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