

Seminar Invitation: Cell Division and Pantograph Equation

Speaker: **Sobia Khalid** from Department of Mathematics, University of the Punjab, Lahore

Abstract

Simple models for size-structured cell populations undergoing growth and division produce a class of functional ordinary differential equations, called pantograph equations, that describe the long-time asymptotics of the cell number density. Pantograph equations arise in a number of applications outside this model and, as a result, have been studied over the last five decades. In this talk, we will review and survey the role of the pantograph equation in the context of cell division. In addition, for a simple case, we present a method of solution based on the Mellin transform and establish uniqueness directly from the transform equation.

Speakers' Brief Introduction

Ms. Sobia Khalid is a Ph.D. scholar working under the supervision of Prof. Dr. Malik Zawwar Hussain (Retired). The field of research of a student is Computational Mathematics, specializing in Functional Partial Differential Equations of Pantograph Type.



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 promoting interdisciplinary collaborations.

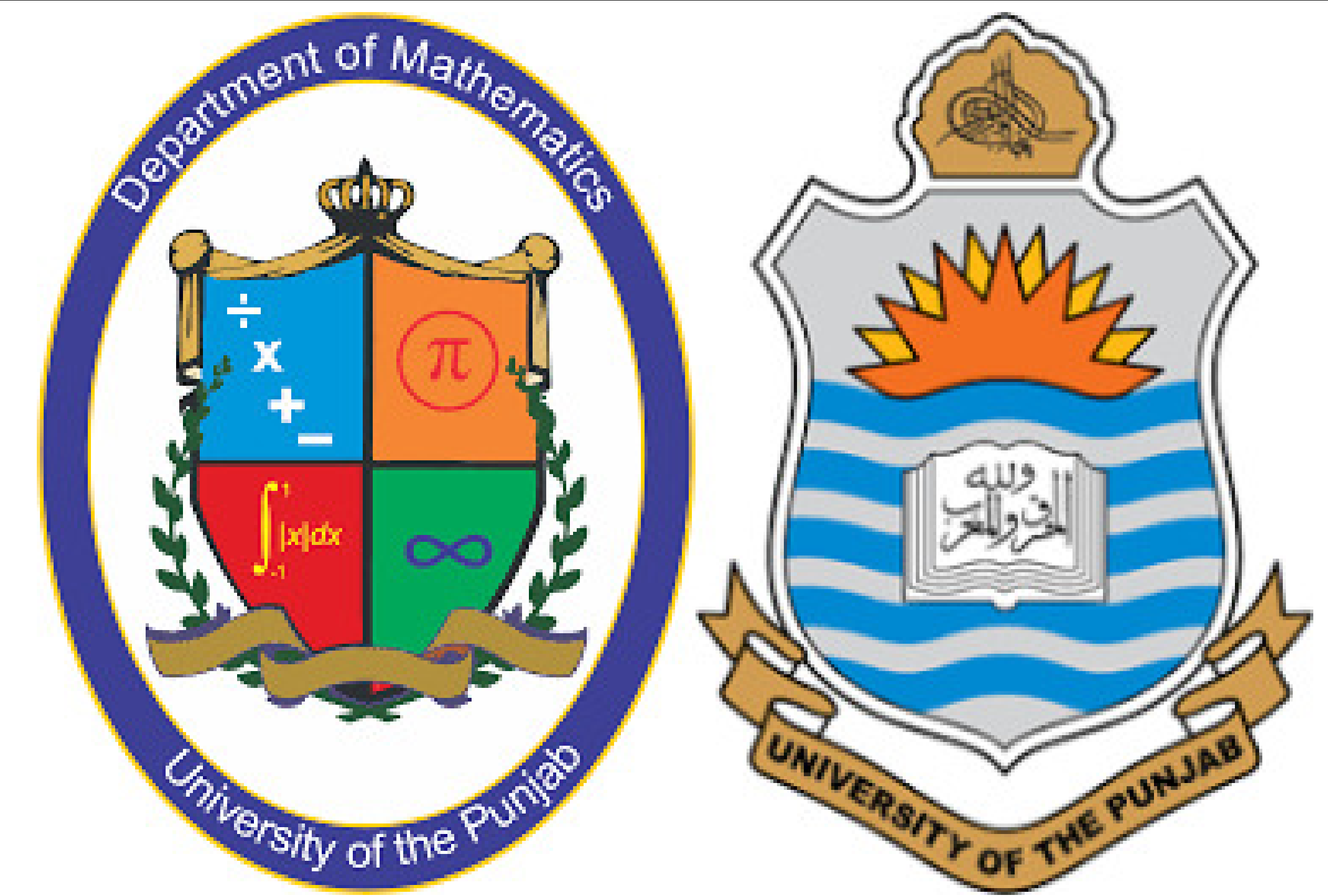


Please join us for this Presentation

When: Wednesday 23 August 2023; Time: 10:00AM-10:30AM

Where: Computer Lab, Department of Mathematics, University of the Punjab, Lahore

Chairman Message



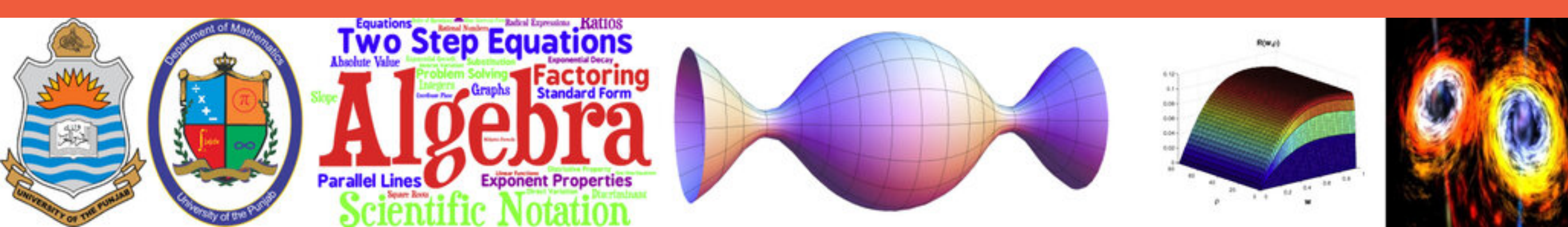
It is my honor to witness the passion and dedication that our faculty and students bring to the study of this beautiful discipline. I encourage our faculty members to create a supportive environment that nurtures and promotes mathematical research. I urge each and every one of you, regardless of your 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

Dr. Zeeshan Yousaf

Associate Professor

Department of Mathematics, University of the Punjab, Lahore



All the faculty members and research scholars (MPhil/PhD) are invited to the seminar

Contact: info.math@pu.edu.pk