

# Seminar Invitation: Distance-Degree Based Topological Indices for Some Benzenoid Systems

Speaker: Muhammad Awais Raza from Department of Mathematics, University of the Punjab, Lahore

## Abstract

In this talk, we discuss topological indices which are used to analyze a variety of physicochemical properties of molecules. We present an analysis focused on the leap Zagreb indices, and hyper leap Zagreb indices specifically examining the circumcoronene series of benzenoid  $C_p$  and the benzenoid hourglass system  $H_p$ . Additionally, we introduce novel topological indices based on  $n$ -distance, including the first and second leap Gourava indices, leap Albertson index, and leap-modified Albertson index. Discussion of the obtained numerical results contributes to a comprehensive understanding of the significance of physicochemical properties within the circumcoronene series of benzenoid  $C_p$  and the benzenoid hourglass system  $H_p$ .

## Speakers' Brief Introduction

Mr. Muhammad Awais Raza is an MPhil Scholar working under the supervision of Dr. Muhammad Khalid Mahmood. The field of research of a student is Pure Mathematics, specializing in Chemical Graph Theory.



## 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; 03:00PM-03:15PM

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

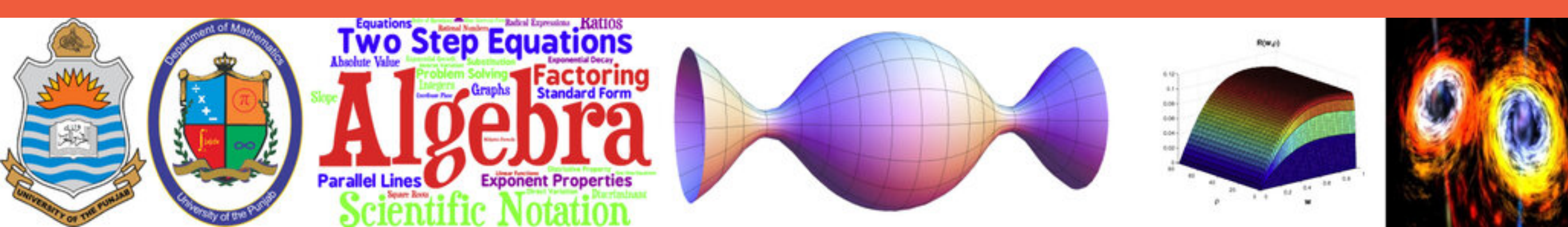
## Chairman Message



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

**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

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