Math Seminar

WILLIAM PATERSON UNIVERSITY

Dr. Aihua Li
Montclair State University

Wednesday, April 4th
12:30-1:30 PM

Mathematics Computer Lab
(Science Hall 3037)

Interlace Polynomials of Certain Graphs

In this talk, the concept of interlace polynomial of a graph will be introduced. Similar to the Martin polynomials and Kauman polynomials, the interlace polynomial of a graph G can help in describing properties of G, such as counting the number of k-component circuit partitions of G, for any positive integer k. In this presentation, properties of the interlace polynomials of certain graphs will be provided. Some of these properties reflect structural properties of the underground graphs.

Dr. Aihua Li is a professor of mathematics at Montclair State University. She received her Ph.D. from the University of Nebraska – Lincoln, specializing in commutative algebra. Her recent research involves topics in graph theory, number theory, algebra, and applications in bioinformatics. She received a 2013 Faculty Mentor Award from the Division of Mathematics and Computer Science of Council on Undergraduate Research (CUR). She is also recipient of Montclair State University Distinguished Scholar Award. In the past decades, she has mentored many undergraduate students on research projects in mathematics. She had directed REU programs for minority students (NREUP) and CURM teams sponsored by NSF through BYU. She had served as co-director for the Garden State Undergraduate Mathematics Conference from 2009 to 2013 and is currently chair-elect for the MAA New Jersey Section. Dr. Li has been a council member in the Council on Undergraduate Research (CUR) since 2013 and a current member of the MAA Committee on Undergraduate Student Activities and Chapters (ZNR).