Seminar Title

"COMBINATORICS OF SUBDIVISION OPERATIONS."

Speaker: Dr. Shaheen Nazir (LUMS)

Date/Time: Monday April 12, 2021

4:00 PM - 5:00 PM PST

Abstract

Many combinatorial, algebraic, and topological statements about polytopes and triangulations of spheres or manifolds have been proven through the study of their Stanley-Reisner rings. These rings are well understood, and the translation of their algebraic properties into combinatorial and topological invariants has a storied and celebrated past. Stanley laid a foundation for the enumerative theory of subdivisions of simplicial complexes. His goal was to understand the behavior of the h-polynomial under iterated subdivisions. In recent years, a lot of studies has been done continuing the Stanley's program for important classes of subdivisions. The aim of this talk is to tame their behavior in terms of certain enumerative invariants encoding part of the combinatorial structure of the complexes.