המחלקה למתמטיקה, בן-גוריון

קולוקוויום

ביום שלישי, 18 ביוני, 2019

בשעה *14:30 – 15:30*

*101- Math*ב

ההרצאה

polytopes of numbers face On

תינתן על-ידי

(HUJI) Nevo Eran

תקציר: A polytope is called simplicial if its all proper faces are simplices. The celebrated g-theorem gives a complete characterization of the possible f-vector (a.k.a. numbers) of simplicial polytopes, conjectured by McMullen in the 70' and proved by Billera-Lee (sufficiency) and Stanley (necessity) in the 80'. The latter uses deep relations with commutative algebra and algebraic geometry. Moving to general polytopes, a finer information than the f-vector is given by the flag-f-vector, counting chains of faces according to their dimensions. Here less much is known, or even conjectured.

I will discuss what works and what breaks, at least conjecturally, when passing from simplicial to general polytopes, or of subfamilies of interest.