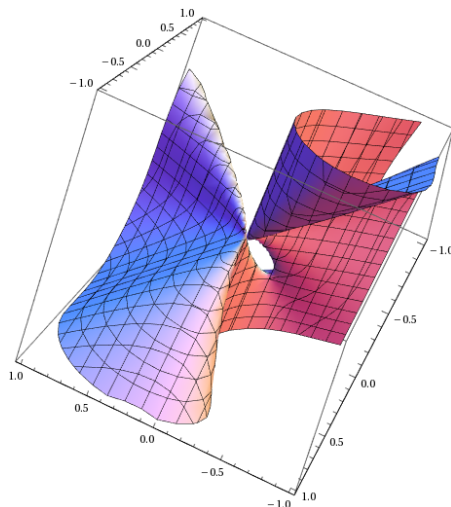


Computations over Local Rings in Macaulay2

Undergraduate Math Club
CORNELL UNIVERSITY



SPEAKER

Mahrud Sayrafi

ABSTRACT

Local rings are ubiquitous in algebraic geometry. Not only are they naturally meaningful in a geometric sense, but also they are extremely useful because of their nice algebraic behavior. After a brief crash course with plenty of examples of local rings, I will present interesting applications of the (soon to be released) LocalRings package in Macaulay2 which allows for computations over localizations of polynomial rings with respect to prime ideals. For the grand finale, we will investigate the local properties of the singularity in the Seepferdchen surface, pictured above. Basic familiarity with abstract algebra (specifically, rings) is recommended.

NOV 13 at 4:45pm

Malott 532 ★ Refreshments