

Abstract

Oberwolfach Workshop:

Resolutions in Local Algebra and Singularity Theory

Dates:

5 Feb - 11 Feb 2023 (Code: 2306)

Organizers:

Aldo Conca, Genova
Steven Dale Cutkosky, Columbia
Eleonore Faber, Leeds
Srikanth B. Iyengar, Salt Lake City

This is a workshop in commutative algebra, broadly interpreted, with a focus on three areas, all concerned with resolutions in various forms.

One is the resolution of singularities of algebraic varieties, which remains a vibrant topic of research.

The second is the theory of noncommutative resolution of singularities. Introduced two decades ago, this subject has witnessed remarkable growth developing connections to algebraic geometry, commutative algebra, cluster algebras, and the representation theory of algebras, both commutative and noncommutative, among others.

The third intended meaning of the word "resolution" is as in free resolutions of algebras and modules in commutative algebra.

The goal of this workshop is to bring together experts and early career researchers in these various fields, to facilitate exchange of ideas and to explore potential collaborations.