

ORAL COMMUNICATION

Cohomological support varietiesBEN BRIGGS^a, ELOÍSA GRIFO^b, JOSH POLLITZ^c^a Institution: University of Copenhagen

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Abstract

There is a long and beautiful history of applying homological methods to study singularities in commutative algebra. Cohomological support varieties, defined by Avramov in the 1980s, assign to each finitely generated module a projective variety encoding homological information. In this talk, we will introduce some of that history, and discuss the following realizability problem: given a fixed ring and an appropriately chosen variety, when can it be realized as the cohomological support variety associated to some module?

Keywords cohomological support varieties