SINGULARITIES OF MATRICES AND DETERMINANTAL VARIETIES

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We present singularity theory methods to investigate matrices singularities, as introduced by J. W. Bruce in 2003, [1]. We show how to apply this approach to study singularities of determinantal varieties. As in Ebeling and Gusein-Zade [2], we define the essentially isolated determinantal singularities, a class of singularities of determinantal varieties to which the singularity theory methods apply. The main goal is to present new results on their invariants and topology**.**

The following topics will be discussed:

- G-equivalence of matrices;
- Essentially isolated determinantal singularities (EIDS);
- The Milnor number of isolated determinantal surfaces;
- General hyperplanes to an EIDS.

The results are based on [3], [4] and [5].

References

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