

Singularities of general polynomial mappings

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Let $F : \mathbb{C}^n \rightarrow \mathbb{C}^n$ be a general polynomial mapping of degree (d_1, \dots, d_n) . I will examine the loci of two-folds, cusps and swallowtails of F , in particular I will calculate their degree in terms of (d_1, \dots, d_n) .

Then I will proceed with examining the determinant of F . I will start with the simplest case $n = 2$ and explain how the situation gets more interesting for higher dimensions.

This is joint work with Z. Jelonek and M.A.S. Ruas.