



# Decomposition of Polynomials

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This diploma thesis is concerned with functional decomposition  $f = g \circ h$  of polynomials. First an algorithm is described which computes decompositions in polynomial time. This algorithm was originally proposed by Zippel (1991). A bound for the number of minimal collisions is derived. Finally a proof of a conjecture in von zur Gathen, Giesbrecht & Ziegler (2010) is given, which states a classification for a special class of decomposable polynomials.

Subjects: **Commutative Algebra (math.AC)**; Symbolic Computation (cs.SC)

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