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The resolvent sextic of McClintock

Since Lagrange's seminal work in 1770, resolvent sextics have been used to study the quintic equation. One of the most interesting is the "noteworthy covariant resolvent discovered by Perrin and independently by McClintock" [L. E. Dickson]. We shall discuss the remarkable properties of this resolvent in light of the invariant theory of F_{20} , the Frobenius group of order 20 acting as a group of permutations on five variables, and SL_2 acting on binary forms.