



A remark on Waring decompositions of some special plane quartics

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This work concerns Waring decompositions of a certain kind of plane quartics of high rank. The main result is the following. Let x, l_1, \dots, l_7 be linear forms and q a quadratic form on a vector space of dimension 3. If $x^2q = l_1^4 + \dots + l_7^4$ and the lines $l_1=0, \dots, l_7=0$ in P^2 intersect $x=0$ in seven distinct points, then the line $x=0$ is (possibly improperly) tangent to the conic $q=0$.

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