

Solubility of additive quartic forms over $\mathbb{Q}_2(\sqrt{-5})$

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Abstract. We prove that the minimum number of variables $\Gamma^*(d, K)$ which guarantees a nontrivial zero for every additive form of degree $d = 4$ over the 2-adic field $K = \mathbb{Q}_2(\sqrt{-5})$ is 9.

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