

**Title:** Arithmetic progressions of four squares over quadratic fields

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Let  $d$  be a squarefree integer. Does there exist four squares in arithmetic progression over  $Q(\sqrt{d})$ ? We shall give a partial answer to this question, depending on the value of  $d$ . In the affirmative case, we construct explicit arithmetic progressions consisting of four squares over  $Q(\sqrt{d})$ .

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