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An a posteriori error estimator for a quadratic  $C^0$ -interior penalty method for the biharmonic problem  
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*MSC Classification:* 65N30 65N15

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*Keywords:* biharmonic equation; efficient and reliable a posteriori error estimator; quadratic  $C^0$ -interior penalty method

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*Review text:*

The authors consider the biharmonic equation posed on two dimensional bounded polygonal domain . The finite element discretization presented by the authors is based on the use of a quadratic  $C^0$ -interior penalty method. They derived an a posteriori error estimator, denoted by  $\eta_h$ . The error estimator  $\eta_h$  is reliable (resp. efficient) in the sense that it is bounded below (resp. above) by the error between the exact solution and the finite element approximate solution. Numerical examples are presented.

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