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Joscha Gedicke* (jgedicke@math.lsu.edu), Department of Mathematics and CCT, 216 Johnston Hall, Louisiana State University, Baton Rouge, LA 70803. *A posteriori error estimates for biharmonic eigenvalue problems*. Preliminary report.

Biharmonic eigenvalue problems occur in the analysis of vibrations and buckling of plates. This talk presents a posteriori error estimates for a quadratic C^0 -interior penalty method for biharmonic eigenvalue problems. A reliable and efficient a posteriori error estimator for the energy and eigenvalue error is derived. The theoretical results are verified in numerical experiments. (Received September 16, 2013)