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Review text:

The authors provides highly localized pointwise error estimates for a stabilized Galerkin method proposed in some years ago. Stabilization terms are added to the standard method to guarantee the existence and uniqueness of the approximate solution regardless of meshsize. The stabilized Galerkin method leads to a minimization problem requiring the solution of a symmetric and positive definite system. Compared to the standard Galerkin method, the stabilized Galerkin method considered in this paper provides a better numerical performance on a coarse mesh and about the same performance on a fine mesh. Recently, highly localized pointwise error estimates are obtained for selfadjoint elliptic partial differential equations for the stabilized Galerkin method. However, the argument cannot be generalized to non-selfadjoint problems. The authors treats then the case of non-selfadjoint problems. He first proves that the stabilized Galerkin solution is superclose (by the factor of h) to the Ritz projection of the true solutions. Then, he proceeds to obtain the pointwise estimate using the discrete Green's function. Application to error expansion inequalities and a posteriori error estimators are discussed.