

AN A POSTERIORI ERROR ANALYSIS FOR STOKES PROBLEM USING AN AUGMENTED DG SCHEME

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Abstract.

In this talk we derive an *a posteriori* error estimator for an augmented mixed discontinuous formulation for the stationary Stokes problem. We prove that this estimator is reliable and locally efficient, and consists of just five residual terms. To this end, we need to consider an appropriate auxiliary problem, as well as the introduction of a suitable Oswald's interpolation of discrete velocity. Finally, some numerical experiments confirming the theoretical properties of the augmented discontinuous scheme, as well as of the estimator, are included in this talk.