A posteriori error estimation for a hybridized discontinuous Galerkin method for incompressible flow

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We present a hybridized discontinuous Galerkin method for incompressible flow, that naturally allows for locally varying polynomial degrees and nonconforming h-refinements. Furthermore, the number of unknowns can be significantly reduced by static condensation on the element level. We present optimal a-priori estimates and also analyze a posteriori error estimates based on a H(div)-conforming flux reconstructions.

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