

An adaptive low-order FE-scheme for Stokes flow with cavitation

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In this note we derive a posteriori error bounds for FE-discretisations for a fluid problem with cavitation. The underlying model is the Stokes system together with an inequality constraint for the pressure. In order to avoid suboptimal behavior of the error bounds we propose to employ a Lagrange setting yielding an improved estimate. Numerical tests confirm our theoretical results.

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