# A posteriori error estimates for discontinuous Galerkin methods with conservative fluxes (SIPG)

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We will deal with the numerical solution of the Poisson equation. The equation will be discretized with the aid of the general discontinuous Galerkin method with consistent and conservative numerical fluxes, where the most important examples are LDG and SIPG. We will derive a guaranteed a posteriori upper bound based on the flux and the solution reconstructions. Some robustness results concerning the efficiency of the estimate will be presented as well.

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