

MAXIMUM-NORM A POSTERIORI ERROR CONTROL FOR SINGULARLY PERTURBED ELLIPTIC REACTION-DIFFUSION EQUATIONS

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ABSTRACT. In this talk we will present residual-type a posteriori error estimates in the maximum norm for singularly perturbed elliptic reaction-diffusion equations. Our estimates are robust with respect to the singular perturbation parameter and also include estimation of consistency defects due to quadrature errors.

Keywords: A posteriori error estimation, maximum-norm error control, singularly perturbed problems, reaction-diffusion equations

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