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ON A WEIGHTED GENERALIZATION OF IYENGAR TYPE INEQUALITIES INVOLVING BOUNDED FIRST DERIVATIVE

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Abstract. Inequalities are obtained for weighted integrals in terms of bounds involving the first derivative of the function. Quadrature rules are obtained and the classical Iyengar inequality for the trapezoidal rule is recaptured as a special case when the weight function $w(x) \equiv 1$. Applications to numerical integration are demonstrated.

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