LOBATTO TYPE QUADRATURE RULES FOR
FUNCTIONS WITH BOUNDED DERIVATIVE

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Abstract. Inequalities are obtained for quadrature rules in terms of upper and lower bounds of the
first derivative of the integrand. Bounds of Ostrowski type quadrature rules are obtained and the
classical Iyengar inequality for the trapezoidal rule is recaptured as a special case. Applications
to numerical integration are demonstrated.

Key words and phrases: Hayashi, Iyengar and Ostrowski inequalities, Quadrature formulae.

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