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FORMING TWO MIXED QUADRATURE RULES USING AN ANTI-GAUSSIAN QUADRATURE RULE

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Abstract

Two mixed quadrature rules of higher precision for approximate evaluation of real definite integrals have been constructed using an anti-Gaussian rule. The analytical convergence of the rules have been studied. The relative efficiencies of these mixed quadrature rules have been shown with the help of suitable test integrals. The error bounds have been determined asymptotically.

Key Words : *Gauss Legendre two point rule, Anti-Gaussian rule, Simpsons 1/3rd rule, Simpson's 3/8th rule, Mixed quadrature rule.*

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