NUMERICAL INTEGRATION OF ANALYTIC FUNCTIONS OF COMPLEX VARIABLES USING MIXED QUADRATURE RULES

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Abstract

A mixed quadrature rule of precision five is formulated by blending Fejer's first and second 3-point rules each having precision three. A linear combination of this mixed quadrature rule with Fejer's second 5-point rule results in another mixed quadrature rule of precision seven. Both these mixed quadrature rules are successfully tested by approximating line integrals of analytic functions of complex variables.

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