Optimal sets of quadrature rules for trigonometric polynomials

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Abstract

In this article we consider the optimal sets of quadrature rules in Borges'sense [On a class of Gauss-like quadrature rules, Numer. Math. 67, (1994) 271-288] for trigonometric polynomials. Also, we consider situations where some nodes are fixed and prescribed in advance. We analyse different cases depending on whether we have an even or odd number of total nodes.

Keywords: Quadrature rules, Trigonometric polynomials, Preassigned nodes