Internality of averaged Gaussian quadrature rules for modified Jacobi measures

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Averaged quadratures ([3, 4]) serve as a suitable method of approximating the error in the Gauss quadrature, but it is desirable that they have internal nodes. This is known to happen e.g. when the measure is one of the four Chebyshev measures modified by a linear divisor ([1, 2]). Now we investigate this question for analogous modifications of the Jacobi measures in general, when many of the required quantities are not known in explicit terms, and describe the exponents α and β for which it suffices to take the number n of nodes big enough.

References

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