

**Dryanov, Dimiter P.**

**Quadrature formulae for entire functions with 2-periodic data.** (English) Zbl 0753.65019

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The author studies quadrature formulae with equidistant nodes involving 2-periodic data of not necessarily consecutive derivatives. The question of existence and uniqueness of such formulae which have highest degree of precision with respect to entire functions of exponential type is considered.

Quadrature formulae of highest degree of precision are obtained without knowing the corresponding interpolation process. A representation of the remainder for functions belonging to a certain Sobolev space is given. Examples are considered.

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**MSC:**

[65D32](#) Numerical quadrature and cubature formulas

[41A55](#) Approximate quadratures

**Keywords:**

quadrature formulae; 2-periodic data; highest degree of precision; entire functions of exponential type; remainder; Sobolev space