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The zeros of the Weierstrass \wp -function and hypergeometric series. (English) Zbl 1222.33017
Math. Ann. 340, No. 4, 897-905 (2008).

Summary: We express the zeros of the Weierstrass \wp -function in terms of generalized hypergeometric functions. As an application of our main result we prove the transcendence of two specific hypergeometric functions at algebraic arguments in the unit disc. We also give a Saalschützian ${}_4F_3$ -evaluation.

MSC:

33E05 Elliptic functions and integrals
11J81 Transcendence (general theory)
11J91 Transcendence theory of other special functions
33C20 Generalized hypergeometric series, ${}_pF_q$

Cited in 4 Documents

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