

ERRATUM TO “LAMÉ DIFFERENTIAL EQUATIONS AND ELECTROSTATICS”

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In the formulation of Theorem 1 in [1] we made an error in the restriction on the degree n in case b). The correct formulation of Theorem 1 is

Theorem 1. *Let $A(x) = (x - a_0)(x - a_1)(x - a_2)(x - a_3)$, $a_0 < \dots < a_3$, be a quartic and $B(x)$ be a cubic polynomial, for which the coefficients r_{j-1} and r_j in the partial fraction decomposition (1.2) are positive and the remaining two coefficients are negative. If*

a) *the sequence r_0, r_1, r_2, r_3 admits only one sign change, i.e., if $j = 1$ or $j = 3$,*

or

b) *the sequence r_0, r_1, r_2, r_3 admits two sign changes, i.e., if $r_0 < 0, r_1 > 0, r_2 > 0, r_3 < 0$, and $n > 1 - (r_0 + r_1 + r_2 + r_3)$,*

then there exists a unique pair (C, y) with $C(x)$ a quadratic polynomial and $y(x) = (x - x_1) \cdots (x - x_n)$ a solution of (1.1) for which $a_{j-1} < x_1 < \cdots < x_n < a_j$.

It is only with this restriction on n that the proof in [1] works for case b).

REFERENCES

- [1] D. K. Dimitrov, W. Van Assche, *Lamé differential equations and electrostatics*, Proc. Amer. Math. Soc. **128** (2000), no. 12, 3621–3628. MR **2001b**:34059

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