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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* $A(x) = (x - a_0)(x - a_1)(x - a_2)(x - a_3)$, $a_0 < \cdots < a_3$, *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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