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ERRATA

Erratum to: "On an Extremal Property of Normal Matrices" [*Mathematical Notes* 97 (1), 67–73 (2015)]

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My paper contained an error. After inequality (2.5), the phrase "The inequality becomes an equality if the matrix Z is normal" must be replaced by the following one: "The inequality becomes an equality at least in two cases: when $k = n$ and the matrix Z is normal and when $k \leq n$ and the matrix Z is Hermitian or skew-Hermitian."

Let us justify this assertion. Recall that the *subdiscriminant* $\mathrm{sDis}_{n-k}(Z)$ of order $n - k$ of the matrix Z is defined as the expression

$$\mathrm{sDis}_{n-k}(Z) = \sum_{I\subset\{1,\dots,n\},\, \sharp(I)=k} \ \prod_{(j,l)\in I,\, j<l} (\lambda_l - \lambda_j)^2,$$

where the symbol $\sharp$ denotes the number of elements of a finite set and $\lambda_1, \dots, \lambda_n$ denote all the eigenvalues of the matrix Z, taking their multiplicity into account.

The right-hand side of equality (2.5) is the sum of the moduli of the same products. Therefore, if $k = n$ and the matrix Z is normal, both sides of inequality (2.5) contain one summand equal to

$$\prod_{(j,l)\in\{1,\dots,n\},\, j<l} |\lambda_l - \lambda_j|^2.$$

But if the matrix Z is Hermitian (skew-Hermitian), then all its eigenvalues are real (pure imaginary). In this case, all the products

$$\prod_{(j,l)\in I,\, j<l} (\lambda_l - \lambda_j)^2,$$

whose sum constitutes the subdiscriminant, are real numbers of the same sign, and the modulus of their sums is equal to the sum of their moduli.

The error mentioned above does not affect the other results of the paper.

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