

**REVIEW of “ON THE BLASCHKE MATRIX PRODUCT AND  
AN ANALOGUE OF THE HORWITZ-RUBEL THEOREM FOR  
THE BLASCHKE MATRIX PRODUCT”**

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The manuscript under review deals with a multidimensional version of a well-known Horwitz-Rubel theorem, the formulation of which (see Theorem 5 on page 154) is difficult to understand. In particular, it is not very clear what kind of determinant we are talking about.

The manuscript under review is written extremely carelessly. For example, the authors cite the main result of Horwitz-Rubel's paper [7] (see Theorem 2 on page 145). When quoting a remark to the main result of [7], a misprint is made: in the definition of the function  $B(t)$  (the last line on page 145), the index  $j$  in the product must change from 2 up to  $k$ , not from 1 up to  $k$ .

On page 151, the authors give a formula (formula (6)) for the automorphism of the classical domain  $\mathcal{R}_I(m \times m)$ , transforming the matrix  $P$  into the zero matrix. This formula cannot be true even for  $m = 1$ , because it contains a typo (one of the expressions in parentheses must be to the power of minus one).

There are often inaccuracies in the work, and it is not always possible to understand what exactly the authors had in mind. For example, Theorem 3 (item (ii)) on page 150 is false already for  $k = 1$  if  $m \geq 2$ .

Definitely, I do not recommend the manuscript under review for publication.