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CORRIGENDUM TO "HERMITE-HADAMARD TYPE INEQUALITIES FOR WRIGHT-CONVEX FUNCTIONS OF SEVERAL VARIABLES" [OPUSCULA MATH. 35, NO. 3 (2015), 411–419]

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Abstract. We correct a small mistake made by the authors of the paper [*Hermite-Hadamard type inequalities for Wright-convex functions of several variables*, Opuscula Math. 35, no. 3 (2015), 411–419].

Keywords: Write convex function, Hermite-Hadamard inequality symmetrization, simplex.

Mathematics Subject Classification: 26D15.

In [1] the authors define the symmetrization of a Wright-convex defined on a simplex $S = \operatorname{conv}\{v_0, \ldots, v_n\} \subset \mathbb{R}^n$ in the following way:

Let C be the set of all cyclic permutations of $\{0, \ldots, n\}$. Any $\sigma \in C$ generates an affine transformation of S given by the formula $\sigma\left(\sum_{i=1}^n t_i v_i\right) = \sum_{i=0}^n t_{\sigma(i)} v_i$, (here t_i are the barycentric coordinates of a point in S.) Then the symmetrization of f is defined by

$$F(x) = \sum_{\sigma \in C} f(\sigma(x)).$$

The authors write:

> It is easy to observe that F is symmetric with respect to the barycenter, which means that $F(\sigma(x)) = F(x)$ for any $\sigma \in C$.

This statement is not true, as the composition of two cyclic permutations need not be a cycle. From further reading, in particular formula (3.2), we discover the true intention of the authors: C is not a set of all cyclic permutation, but the subgroup of the symmetric group S_{n+1} generated by one $(n+1)$-cycle, e.g. $(0, 1, \ldots, n)$. With this interpretation formula (3.2) and Theorem 3.2 are true.

REFERENCES

[1] D. Śliwińska, S. Wąsowicz, *Hermite-Hadamard type inequalities for Wright-convex functions of several variables*, Opuscula Math. **35** (2015) 3, 411–419.

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