

A NOTE ON THE HERMITE–HADAMARD INEQUALITY FOR CONVEX FUNCTIONS ON THE CO-ORDINATES

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Abstract. In this paper, we obtain some new Hermite–Hadamard-type inequalities for convex functions on the co-ordinates. We conclude that the results obtained in this work are the refinements of the earlier results.

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REFERENCES

- [1] M. ALOMARI AND M. DARUS, *The Hadamard’s inequality for s -convex functions of 2-variables on the co-ordinates*, Int. J. Math. Anal., **2**, 13 (2008), 629–638.
- [2] M. ALOMARI AND M. DARUS, *On the Hadamard’s inequality for log-convex functions on the co-ordinates*, J. Inequal. Appl., 2009, 2009: 283147.
- [3] M. BESENYEI AND ZSOLT PÁLES, *Hadamard-type inequalities for generalized convex functions*, Math. Inequal. Appl., **6**, 3 (2003), 379–392.
- [4] S. S. DRAGOMIR, *On the Hadamard’s inequality for convex functions on the co-ordinates in a rectangle from the plane*, Taiwanese J. Math., **5**, 4 (2001), 775–788.
- [5] S. S. DRAGOMIR, *Hermite–Hadamard’s type inequalities for operator convex functions*, Appl. Math. Comput., **218**, 3 (2011), 766–772.
- [6] S. S. DRAGOMIR, *Hermite–Hadamard’s type inequalities for convex functions of selfadjoint operators in Hilbert spaces*, Linear Algebra Appl., **436**, 5 (2012), 1503–1515.
- [7] ABDALLAH EL FARSSI, *Simple proof and refinement of Hermite–Hadamard inequality*, J. Math. Inequal., **4**, 3 (2010), 365–369.
- [8] XIANG GAO, *A note on the Hermite–Hadamard inequality*, J. Math. Inequal., **4**, 4 (2010), 587–591.
- [9] M. A. LATIF AND M. ALOMARI, *On Hadamard-type inequalities for h -convex functions on the co-ordinates*, Int. J. Math. Anal. **3**, 33 (2009), 1645–1656.
- [10] M. A. LATIF AND S. S. DRAGOMIR, *On some new inequalities for differentiable co-ordinated convex functions*, J. Inequal. Appl., 2012, 2012:28.
- [11] M. E. ÖZDEMİR, H. KAVURMACI, A. O. AKDEMİR AND M. AVCI, *Inequalities for convex and s -convex functions on $\Delta = [a,b] \times [c,d]$* , J. Inequal. Appl., 2012, 2012:20.
- [12] M. E. ÖZDEMİR, ÇETİN YILDIZ AND A. O. AKDEMİR, *On some new Hadamard-Type inequalities for co-ordinated quasi-convex functions*, Hacet. J. Math. Stat. **41**, 5 (2012), 697–707.