

## ESTIMATES OF THE DIFFERENCE BETWEEN TWO WEIGHTED INTEGRAL MEANS VIA WEIGHTED MONTGOMERY IDENTITY

A. AGLIĆ ALJINOVIĆ, J. PEČARIĆ AND I. PERIĆ

*Abstract.* Some new generalizations of estimates of difference between two weighted integral means are given, by using Euler-type identities and weighted Montgomery identity

*Mathematics subject classification (2000):* 26D10, 26D15, 26D20.

*Key words and phrases:* Bernoulli polynomials, Montgomery identity, weighted integral means.

### REFERENCES

- [1] M. ABRAMOWITZ AND I. A. STEGUN (EDS), *Handbook of mathematical functions with formulae, graphs and mathematical tables*, National Bureau of Standards, Applied Math. Series 55, 4th printing, Washington 1965.
- [2] A. AGLIĆ ALJINOVIĆ, M. MATIĆ AND J. PEČARIĆ, *Improvements of some Ostrowski type inequalities*, (submitted).
- [3] G. A. ANASTASSIOU, *Univariate Ostrowski inequalities*, Monatshefte für Mathematik **135**, 175–189 (2002).
- [4] N. S. BARNETT, P. CERONE, S. S. DRAGOMIR AND A. M. FINK, *Comparing two integral means for absolutely continuous mappings whose derivatives are in  $L_\infty[a, b]$  and applications*, Computers and Math. With Appl. **44** (2002), 241–251.
- [5] P. CERONE, *On a identity for the Chebychev functional and some ramifications*, RGMIA Res. Rep. Coll., Vol 3, Issue 1, No 4 (2002).
- [6] P. CERONE AND S. S. DRAGOMIR, *Diferences between means with bounds from a Riemann-Stieltjes integral*, RGMIA Res. Rep. Coll., Vol 4, No. 2, (2001).
- [7] P. CERONE AND S. S. DRAGOMIR, *On some inequalities arising from Montgomery identity*, RGMIA. Res. Rep. Coll. Vol 3, No 2 (2000).
- [8] LJ. DEDIĆ, M. MATIĆ AND J. PEČARIĆ, *On generalizations of Ostrowski inequality via some Euler-type identities*. Math. Inequal. & Appl., 3 (3) (2000), 337–353.
- [9] A. M. FINK, *Bounds of the deviation of a function from its averages*, Czechoslovak Math. J., **42** (117) (1992), 289–310.
- [10] J. PEČARIĆ, I. PERIĆ, A. VUKELIĆ, *Estimates of the difference between two integral means via Euler-type identities*, Math. Inequal. & Appl. 7 (3) (2004), 365–378.