

THE WEIGHTED EULER IDENTITY

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Abstract. Some new weighted generalisations of Euler-type identities are given, by using weighted Montgomery identity.

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REFERENCES

- [1] M. ABRAMOWITZ, 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 ALJINOVIC, M. MATIĆ AND J. PEČARIĆ, *Improvements of some Ostrowski type inequalities*, Journal of Computational Analysis and Applications (to appear).
- [3] A. AGLIĆ ALJINOVIC, I. PERIĆ AND J. PEČARIĆ, *Estimations of the difference of two weighted integral means via weighted Montgomery identity*, Math. Inequal. & Appl., **7**, 3 (2004) 315–336.
- [4] G. A. ANASTASSIOU, *Univariate Ostrowski inequalities*, Monatshefte für Mathematik **135**, (2002), 175–189.
- [5] 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.
- [6] P. CERONE, S. S. DRAGOMIR, *Differences between means with bounds from a Riemann-Stieltjes integral*, RGMIA Res. Rep. Coll., **4**, 2 (2001).
- [7] P. CERONE, S. S. DRAGOMIR, *On some inequalities arising from Montgomery identity*, Journal of Computational Analysis and Applications, **5**, 4 (2003), 341–367.
- [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] V. I. KRYLOV, *Approximate calculation of integrals*, Macmillan, New York-London, 1962.
- [10] J. PEČARIĆ, *On the Čebyšev inequality*, Bul. Inst. Politehn. Timisoara **25**, 39 (1980), 10–11.
- [11] J. PEČARIĆ, I. PERIĆ AND A. VUKELIĆ, *Estimations of the difference of two integral means via Euler-type identities*, Math. Inequal. & Appl. **7**, 3 (2004), 365–378.