

LANDAU TYPE INEQUALITIES FOR BANACH SPACE VALUED FUNCTIONS

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Abstract. Motivated by the work of George A. Anastassiou in [George A. Anastassiou, Ostrowski and Landau inequalities for Banach space valued functions, *Mathematical and Computer Modelling*, 55 (2012), 312–329], we derive some Landau type inequalities for Banach space valued functions without assuming the boundary conditions.

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REFERENCES

- [1] A. AGLIĆ ALJINOVIĆ, LJ. MARANGUNIĆ, J. PEČARIĆ, *On Landau type inequalities via extension of Montgomery identity, Euler and Fink identities*, *Nonlinear Functional Analysis and Applications* **10**, 2 (2005), 273–283.
- [2] A. AGLIĆ ALJINOVIĆ, LJ. MARANGUNIĆ, J. PEČARIĆ, *On Landau type inequalities via Ostrowski inequalities*, *Nonlinear functional analysis and applications* **10**, 4 (2005), 565–579.
- [3] G. A. ANASTASSIOU, *Left Caputo fractional $\|\cdot\|_\infty$ -Landau inequalities*, *Appl. Math. Lett.* **24**, 7 (2011), 1149–1154.
- [4] G. A. ANASTASSIOU, *Ostrowski and Landau inequalities for Banach space valued functions*, *Mathematical and Computer Modelling* **55** (2012), 312–329.
- [5] N. S. BARNETT, C. BUSE, P. CERONE AND S. DRAGOMIR, *Ostrowski's inequality for vector-valued functions and applications*, *Comput. Math. Appl.* **44** (2002), 559–572.
- [6] G. H. HARDY, E. LANDAU AND J. E. LITTLEWOOD, *Some inequalities satisfied by the integrals or derivatives of real or analytic functions*, *Math. Z.* **39**(1935), 677–695.
- [7] G. H. HARDY AND J. E. LITTLEWOOD, *Some integral inequalities connected with the calculus of variations*, *Quart. J. Math. Oxford Ser.* **3** (1932), 241–252.
- [8] E. LANDAU, *Einige ungleichungen für zweimal differenzierbaren fuktionen*, *Proc. Lond. Math. Soc.* **13** (1913), 43–49.
- [9] G. SHILOV, *Elementary Functional Analysis*, The MIT Press Cambridge, Massachusetts, 1974.