

## SEVERAL INTERESTING INTEGRAL INEQUALITIES

WENJUN LIU, QUỐC-ANH NGÔ AND VU NHAT HUY

*Abstract.* In this paper, several interesting integral inequalities are presented and some open problems are proposed later on.

*Mathematics subject classification (2000):* 26D15.

*Keywords and phrases:* integral inequality, Qi's inequality.

### REFERENCES

- [1] M. AKKOUCHI, *Some integral inequalities*, Divulgaciones Math., **11**, 2 (2003), 121–125.
- [2] M. AKKOUCHI, *On an integral inequality of Feng Qi*, Divulgaciones Math., **13**, 1 (2005), 11–19.
- [3] K. BRAHIM, *On some  $q$ -integral inequalities*, JIPAM. J. Inequal. Pure Appl. Math., **9**, 4 (2008), Art. 106.
- [4] L. BOUGOFFA, *Notes on Qi type integral inequalities*, JIPAM. J. Inequal. Pure Appl. Math., **4**, 4 (2003), Art. 77.
- [5] L. BOUGOFFA, *An integral inequality similar to Qi's inequality*, JIPAM. J. Inequal. Pure Appl. Math., **6**, 1 (2005), Art. 27.
- [6] K. BOUKERRIOUA AND A. GUEZANE-LAKOUD, *On an open question regarding an integral inequality*, JIPAM. J. Inequal. Pure Appl. Math., **8**, 3 (2007), Art. 77.
- [7] L. BOUGOFFA, *Note on an open problem*, JIPAM. J. Inequal. Pure Appl. Math., **8**, 2 (2007), Art. 58.
- [8] Y. CHEN AND J. KIMBALL, *Note on an open problem of Feng Qi*, JIPAM. J. Inequal. Pure Appl. Math., **7**, 1 (2005), Art. 4.
- [9] B. GAVREA, *On some integral inequalities*, International Series of Numerical Mathematics **157**, Birkhäuser Basel (2009), pp. 91–95.
- [10] N.S. HOANG, *Notes on an inequality*, JIPAM. J. Inequal. Pure Appl. Math., **9**, 2 (2008), Art. 42.
- [11] *The 2nd International Mathematical Competition for University Students, Plovdiv, Bulgaria, 2–7 August, 1995, Solutions for problems on Day 1*, Available online at  
URL: <http://www.imc-math.org.uk/index.php?year=1995> or  
URL: [http://www.ucl.ac.uk/~ucahjej/imc/imc1995/prob\\_sol.pdf](http://www.ucl.ac.uk/~ucahjej/imc/imc1995/prob_sol.pdf).
- [12] J.-CH. KUANG, *Applied inequalities*, 3rd edition, Shandong Science and Technology Press, Jinan, China, 2004. (Chinese).
- [13] W.J. LIU, C.C. LI AND J.W. DONG, *Note on Qi's inequality and Bougoffa's inequality*, JIPAM. J. Inequal. Pure Appl. Math., **7**, 4 (2006), Art. 129.
- [14] W.J. LIU, C.C. LI AND J.W. DONG, *Consolidations of extended Qi's inequality and Bougoffa's inequality*, J. Math. Inequal., **2**, 1 (2008), 9–15.
- [15] W.J. LIU, C.C. LI AND J.W. DONG, *On an open problem concerning an integral inequality*, JIPAM. J. Inequal. Pure Appl. Math., **8**, 3 (2007), Art. 74.
- [16] W.J. LIU, G.S. CHENG AND C.C. LI, *Further development of an open problem concerning an integral inequality*, JIPAM. J. Inequal. Pure Appl. Math., **9**, 1 (2008), Art.14.
- [17] *Mathematics today* **10**, A.Ya. Dorogovtsev (Ed.), Nauchnoe Izdatel'stvo "TViMS", Kiev, 1995, pp. 102.
- [18] Y. MIAO AND J. LI, *Further development of an open problem*, JIPAM. J. Inequal. Pure Appl. Math., **9**, 4 (2008), Art. 108.
- [19] S. MAZOUZI AND F. QI, *On an open problem regarding an integral inequality*, JIPAM. J. Inequal. Pure Appl. Math., **4**, 2 (2003), Art. 31.

- [20] Q.A. NGÔ, D.D. THANG, T. T. DAT AND D.A. TUAN, *Note on an integral inequality*, JIPAM. J. Inequal. Pure Appl. Math., **7**, 4 (2006), Art. 120.
- [21] T.K. POGANY, *On an open problem of F. Qi*, JIPAM. J. Inequal. Pure Appl. Math., **3**, 4 (2002), Art. 54.
- [22] F. QI, *Several integral inequalities*, JIPAM. J. Inequal. Pure Appl. Math., **1**, 2 (2000), Art. 19.
- [23] F. QI, A.J. LI, W.Z. ZHAO, D.W. NIU, AND J. CAO, *Extensions of several integral inequalities*, JIPAM. J. Inequal. Pure Appl. Math., **7**, 3 (2006), Art. 107.
- [24] W. T. SULAIMAN, *On an integral inequality*, Commun. Math. Anal., **5**, 1 (2008), 57–64.
- [25] K. W. YU AND F. QI, *A short note on an integral inequality*, RGMIA Res. Rep. Coll., **4**, 1 (2001), Art. 4, 23–25.