CARPATHIAN J. MATH. 30 (2014), No. 1, 117 - 122
Online version available at http://carpathian.ubm.ro
Print Edition: ISSN 1584 - 2851 Online Edition: ISSN 1843 - 4401

The least r-concave majorant of the continuity modulus ω_r

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ABSTRACT.

We define the least r-concave majorant for the modulus of continuity of order r on $\mathbf{C}[a,b]$, denoted by $\overline{\omega}_r$ and we establish the inequality

$$\overline{\omega}_r(f,2t) \leq 2^r K_r^1\left(f,t;\mathbf{C}[a,b],\mathbf{C^r}[a,b]\right), 0<t\leq\frac{b-a}{2r}.$$

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Received: 28.05.2012; In revised form: 09.12.2012; Accepted: 21.06.2013
2010 *Mathematics Subject Classification.* 26A15, 41A44.
Key words and phrases. *Moduli of smoothness, least concave majorant, Peetre's K-functional.*