Research Group in Mathematical Inequalities and Applications

$v(G) > \sum_{m \in G} v(m)$

The value of the Group is greater than the sum of the values of its members.

Problem Corner

Problem 4, (2010)

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Open Problem: Let a, b, c be positive real numbers, u, k are positive constant and $k > 1$. Find the minimum value of:

$$\frac{a}{b+c} + \frac{b}{c+a} + \frac{c}{a+b} + u\left[\frac{abc}{(a+b)(b+c)(c+a)}\right]^k.$$

Remark: The author proved that the minimum of the expression above when $k \leq 1$ is equal to $\min\left(2, \frac{3}{2} + \frac{u}{8^k}\right)$.