If $a, b, c \geq 0, a + b + c = 3$ then:

$$\frac{a}{b^2 + c^2 + 2a + 2} + \frac{b}{c^2 + a^2 + 2b + 2} + \frac{c}{a^2 + b^2 + 2c + +2} \leq \frac{1}{2}$$

Proposed by Nguyen Hung Cuong-Vietnam

Solution by Tapas Das-India

$$\sum_{cyc} \frac{a}{b^2 + c^2 + 2a + 2} = \sum_{cyc} \frac{a}{(b^2 + 1) + (c^2 + 1) + 2a} \leq$$

$$\overset{AM-GM}{\leq} \sum_{cyc} \frac{a}{2a + 2b + 2c} = \frac{a + b + c}{2(a + b + c)} = \frac{1}{2}$$

$$Equality \ for \ a = \ b = c = 1$$