

# Bilkent University <br> Department of Mathematics 

## Problem Of The Month

Term: November 2016

Find the greatest real number $M$ such that the inequality

$$
a^{2}+b^{2}+c^{2}+3 a b c \geq M(a b+b c+c a)
$$

holds for all nonnegative real numbers $a, b, c$ satisfying $a+b+c=4$.

